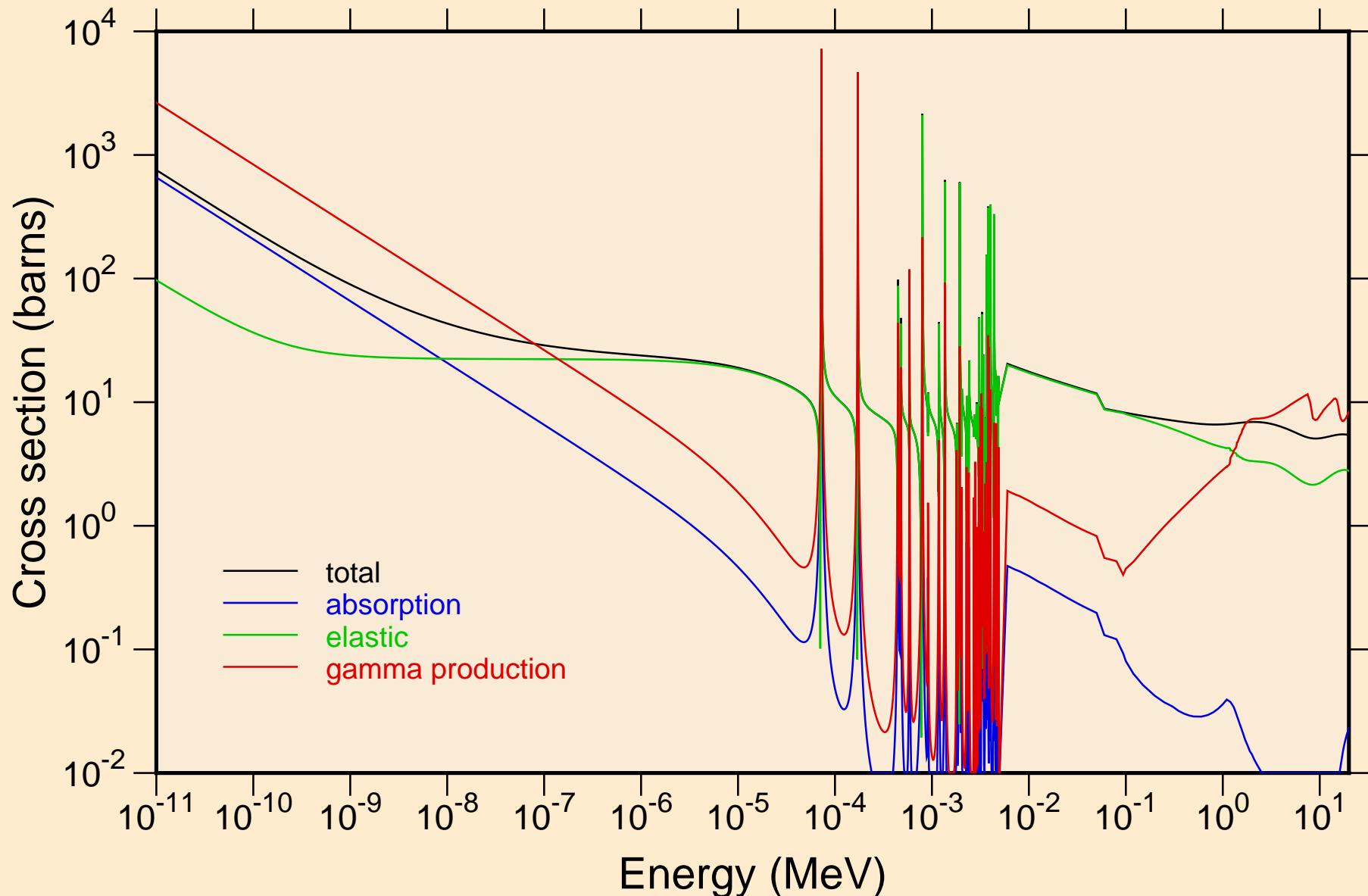


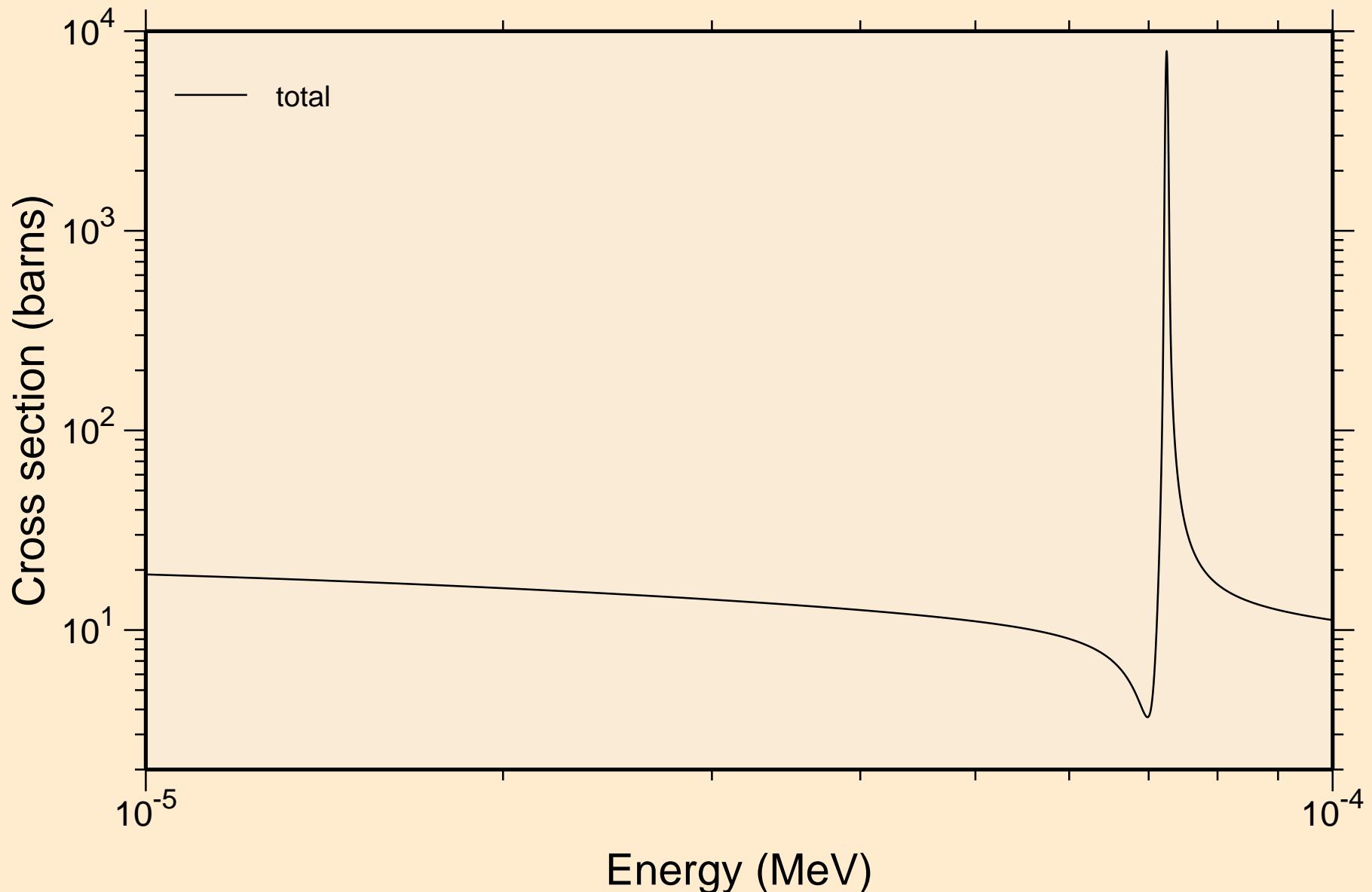
# ADVANCE CALCULATIONS

## Principal cross sections



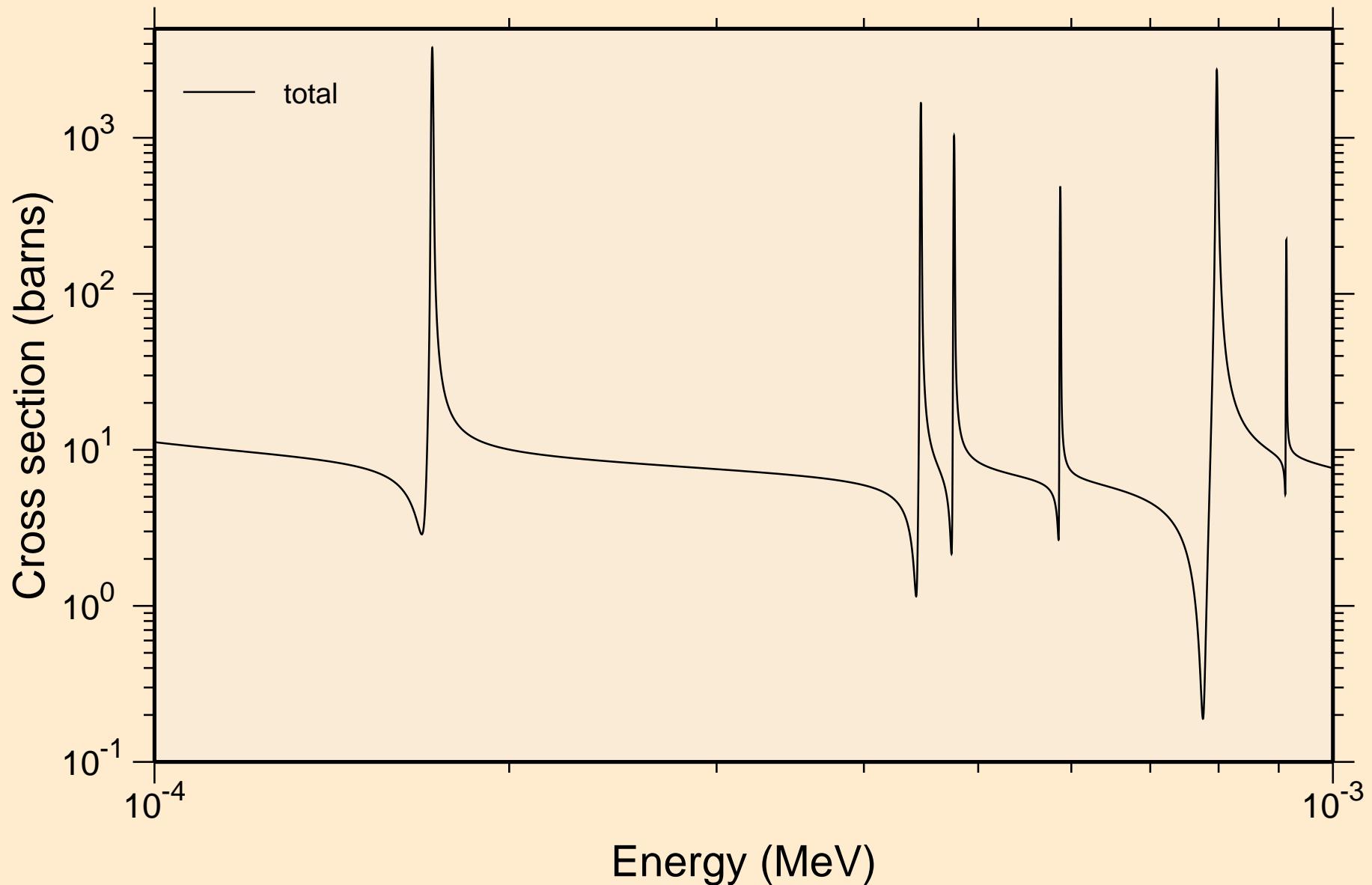
# ADVANCE CALCULATIONS

## resonance total cross section



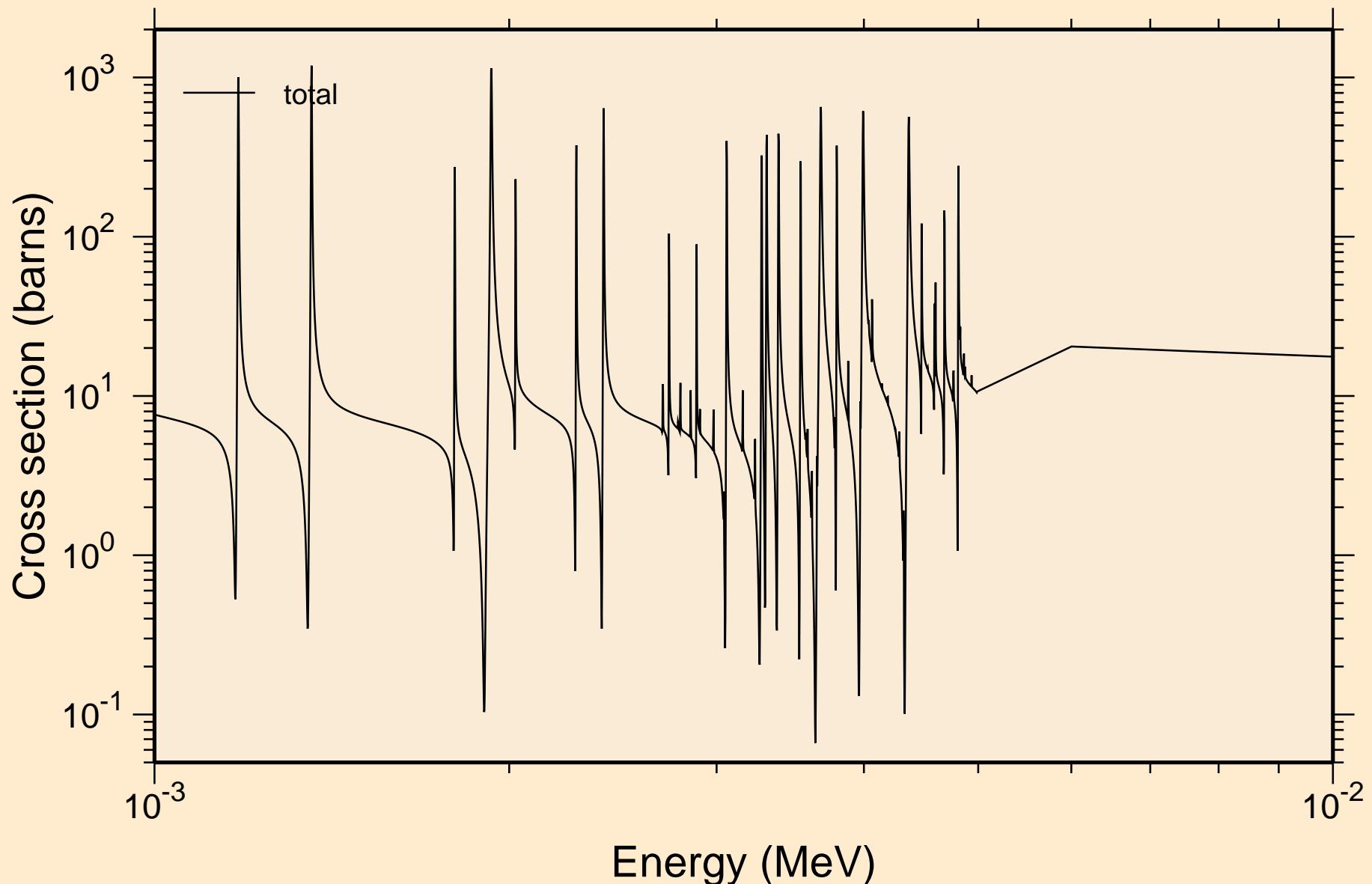
# ADVANCE CALCULATIONS

## resonance total cross section



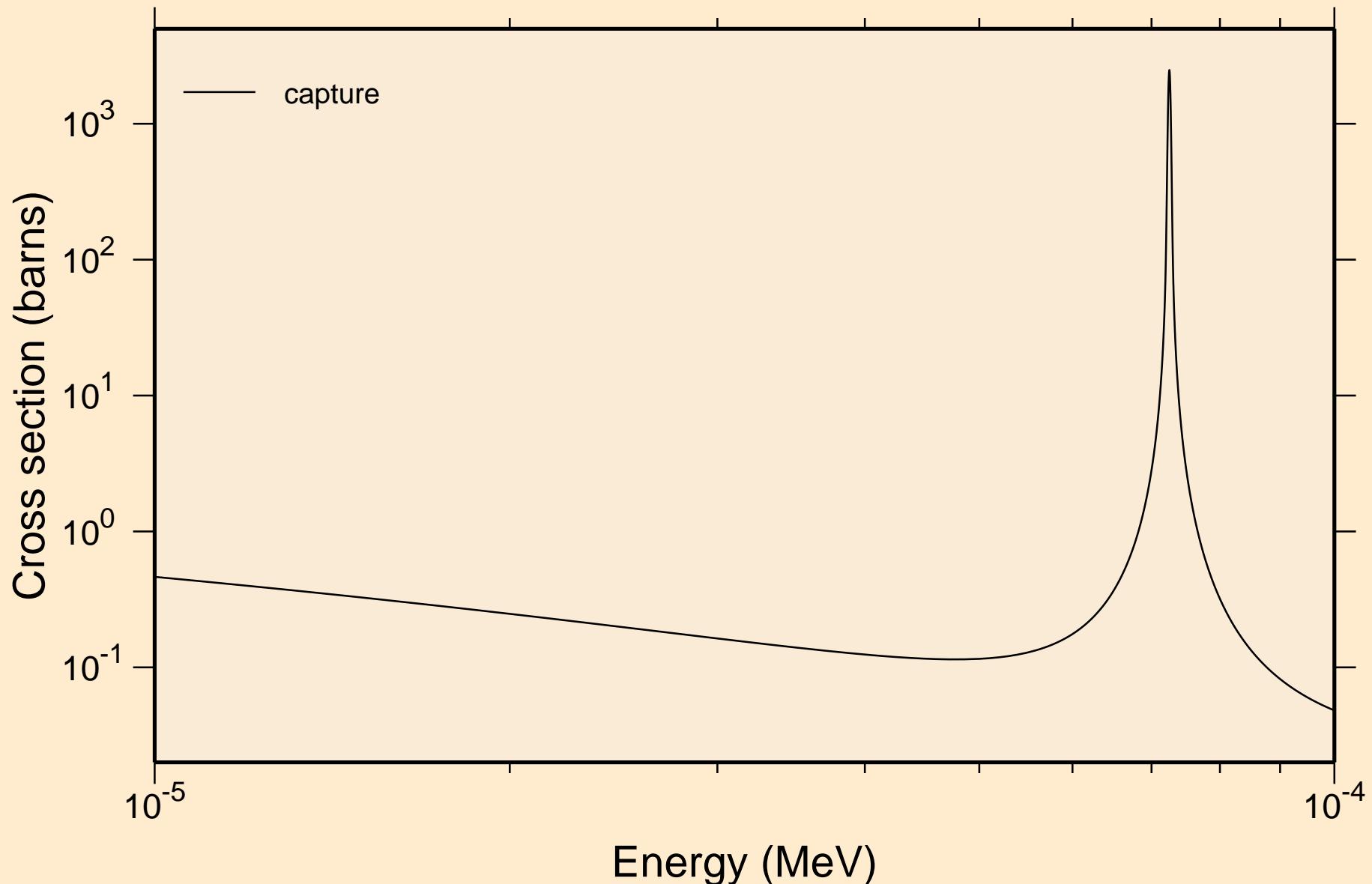
# ADVANCE CALCULATIONS

## resonance total cross section



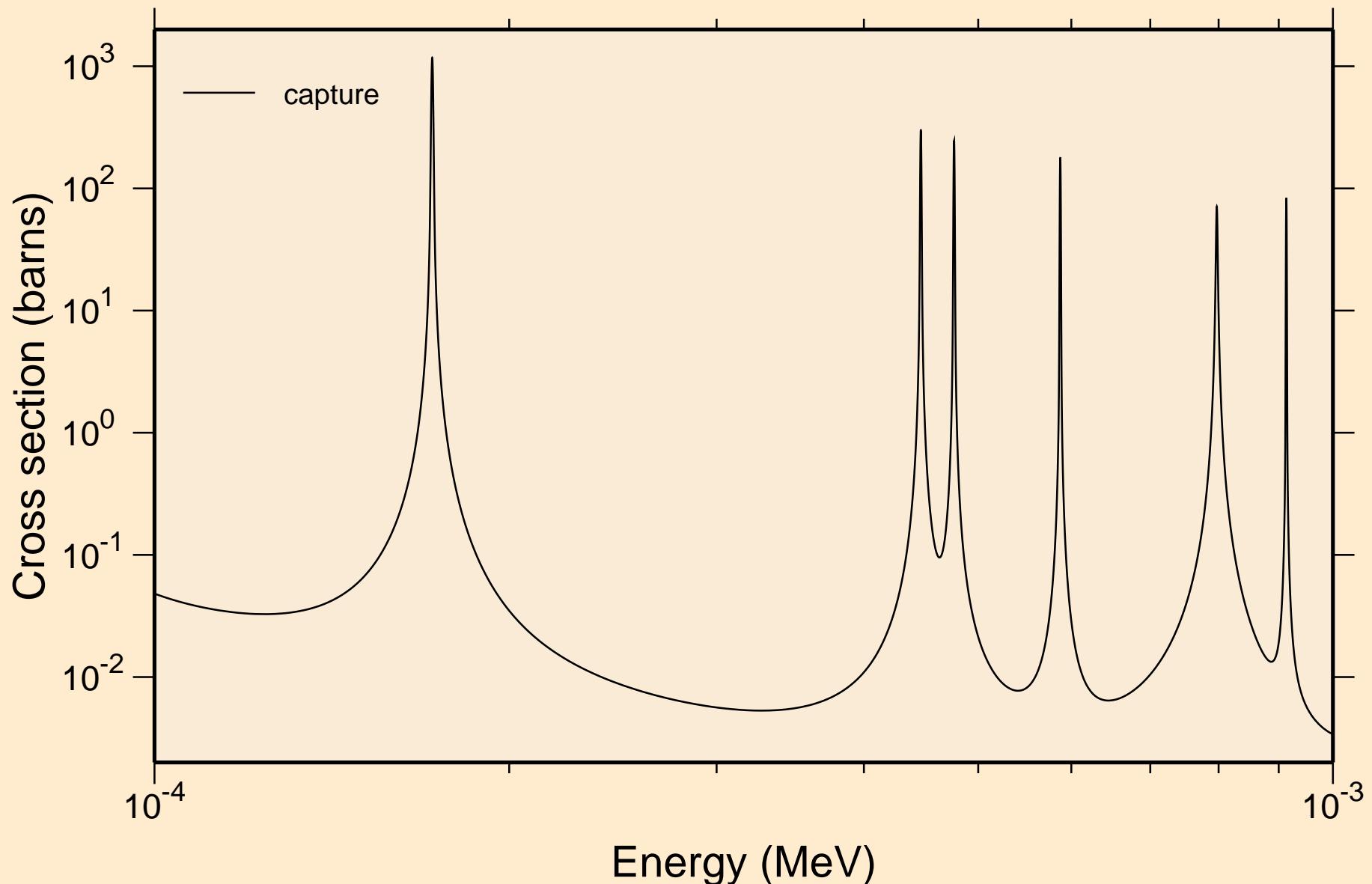
# ADVANCE CALCULATIONS

## resonance absorption cross sections



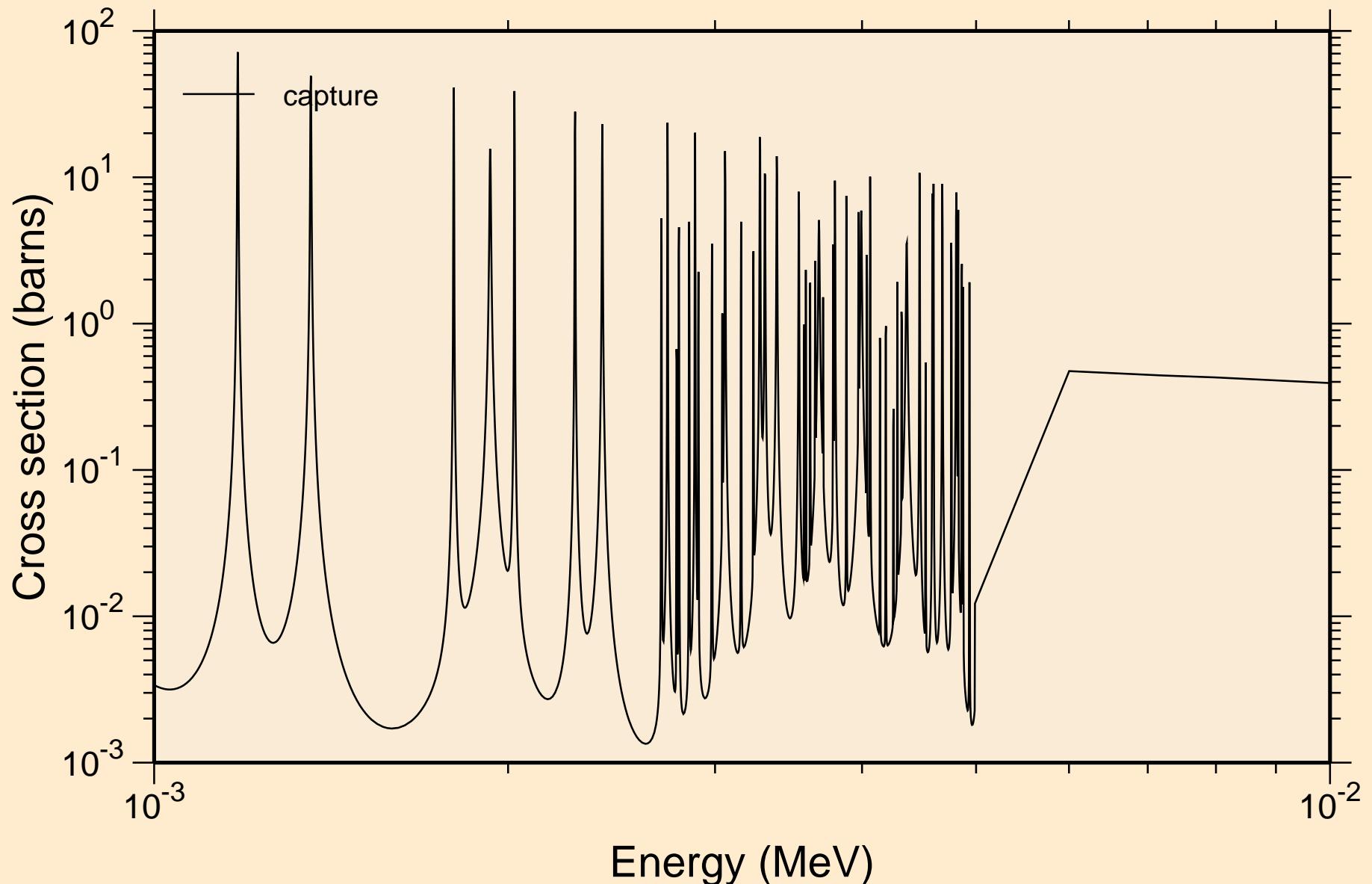
# ADVANCE CALCULATIONS

## resonance absorption cross sections



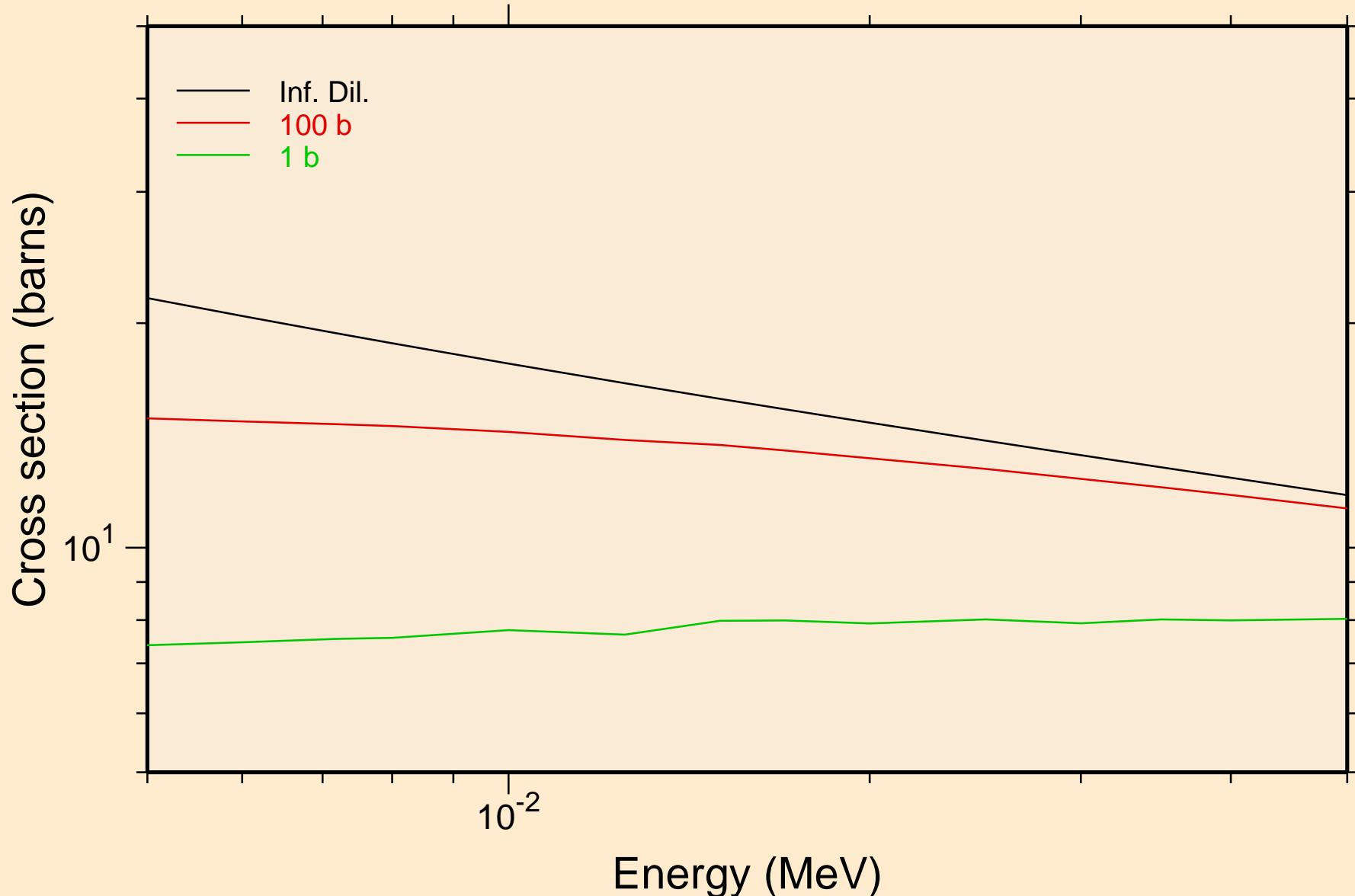
# ADVANCE CALCULATIONS

## resonance absorption cross sections



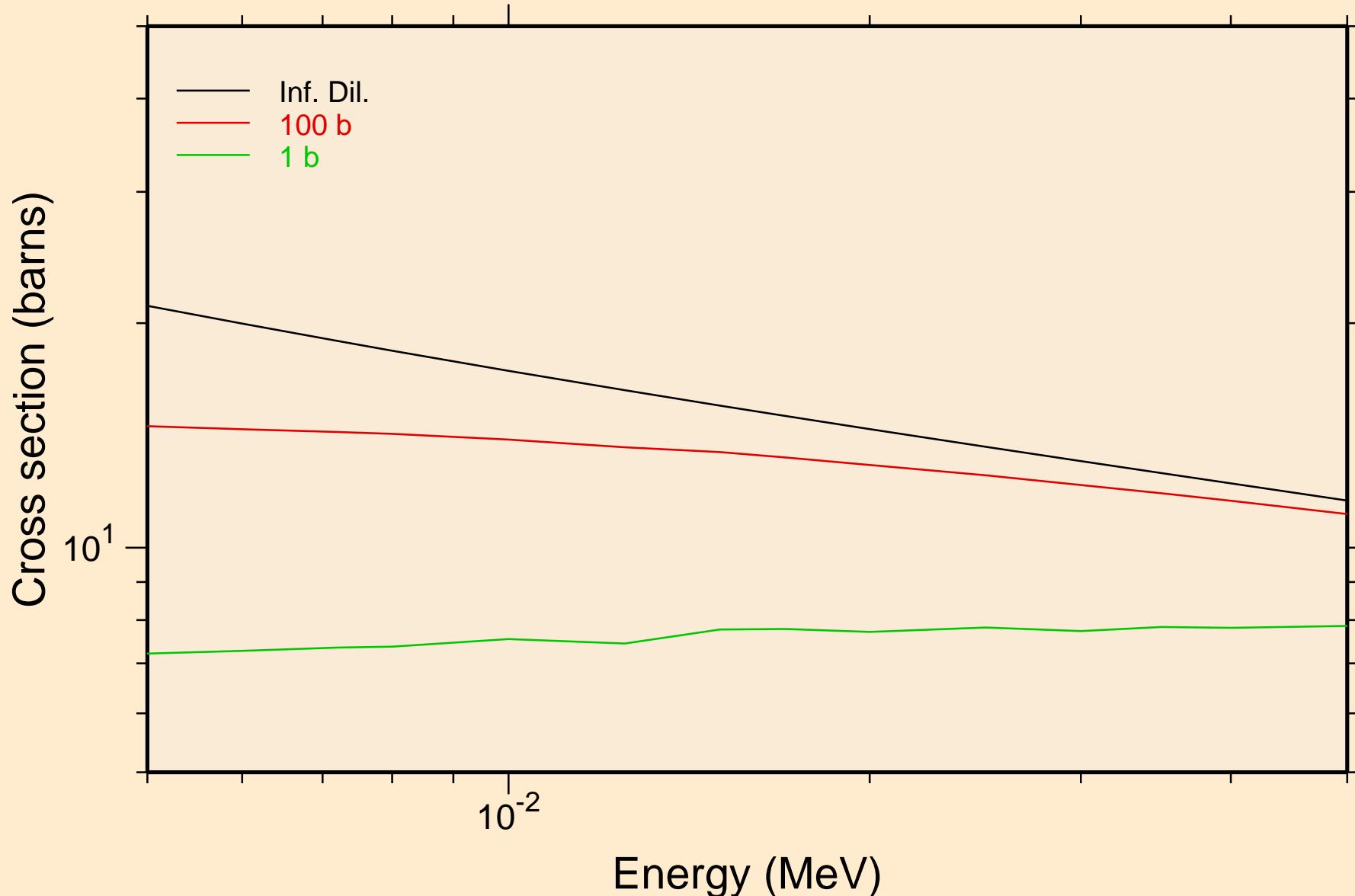
# ADVANCE CALCULATIONS

## UR total cross section



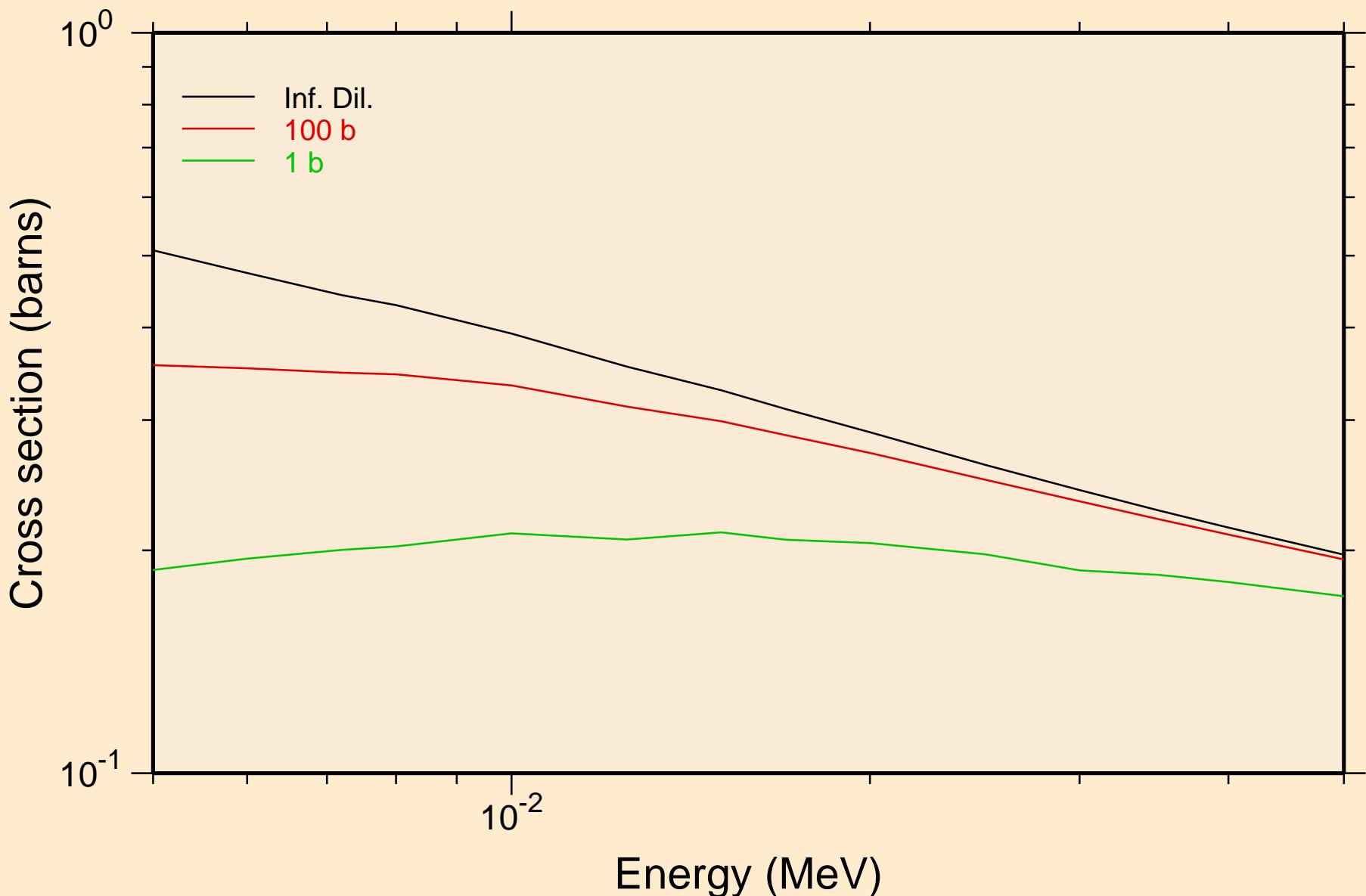
# ADVANCE CALCULATIONS

## UR elastic cross section



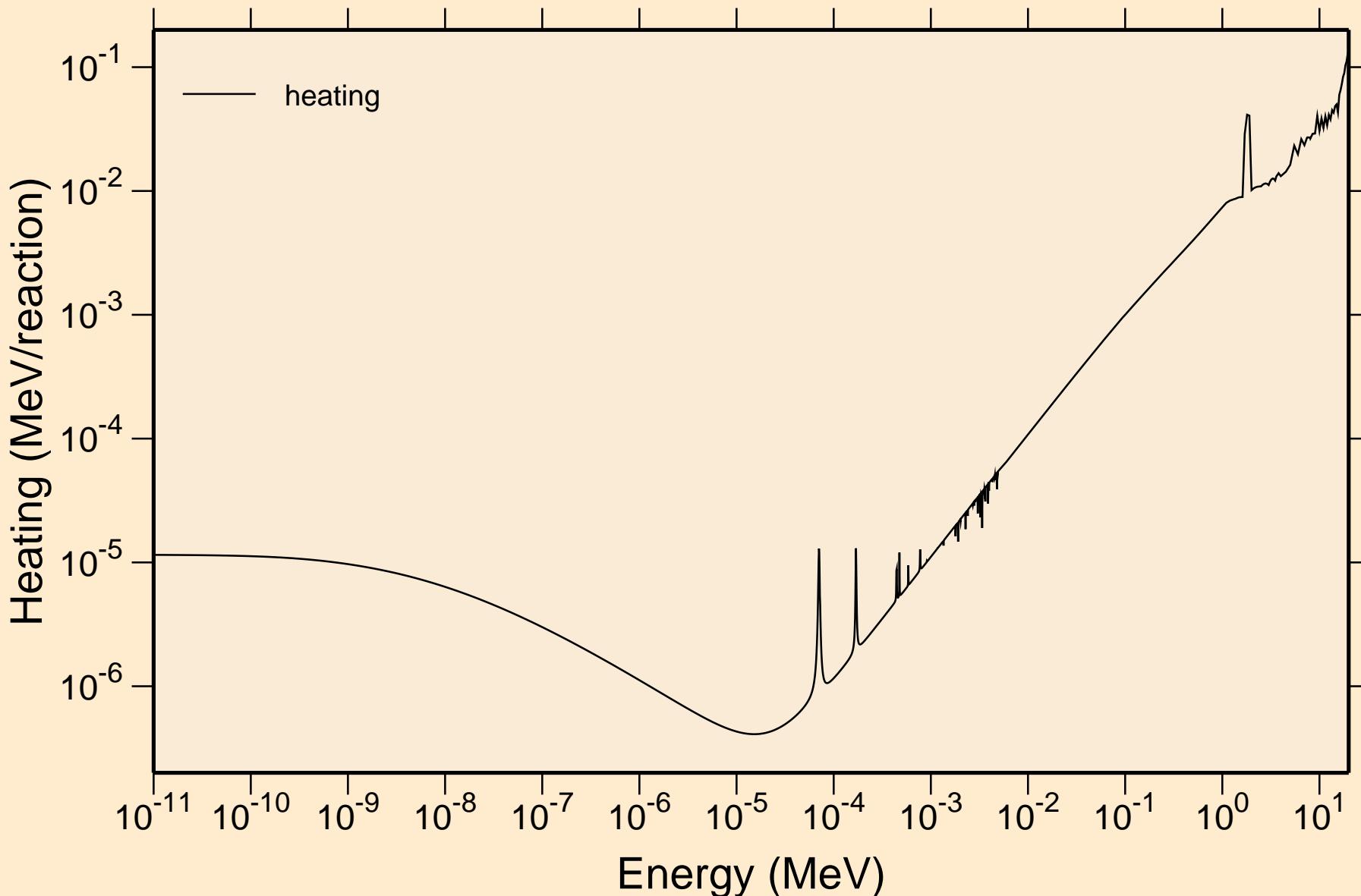
# ADVANCE CALCULATIONS

## UR capture cross section



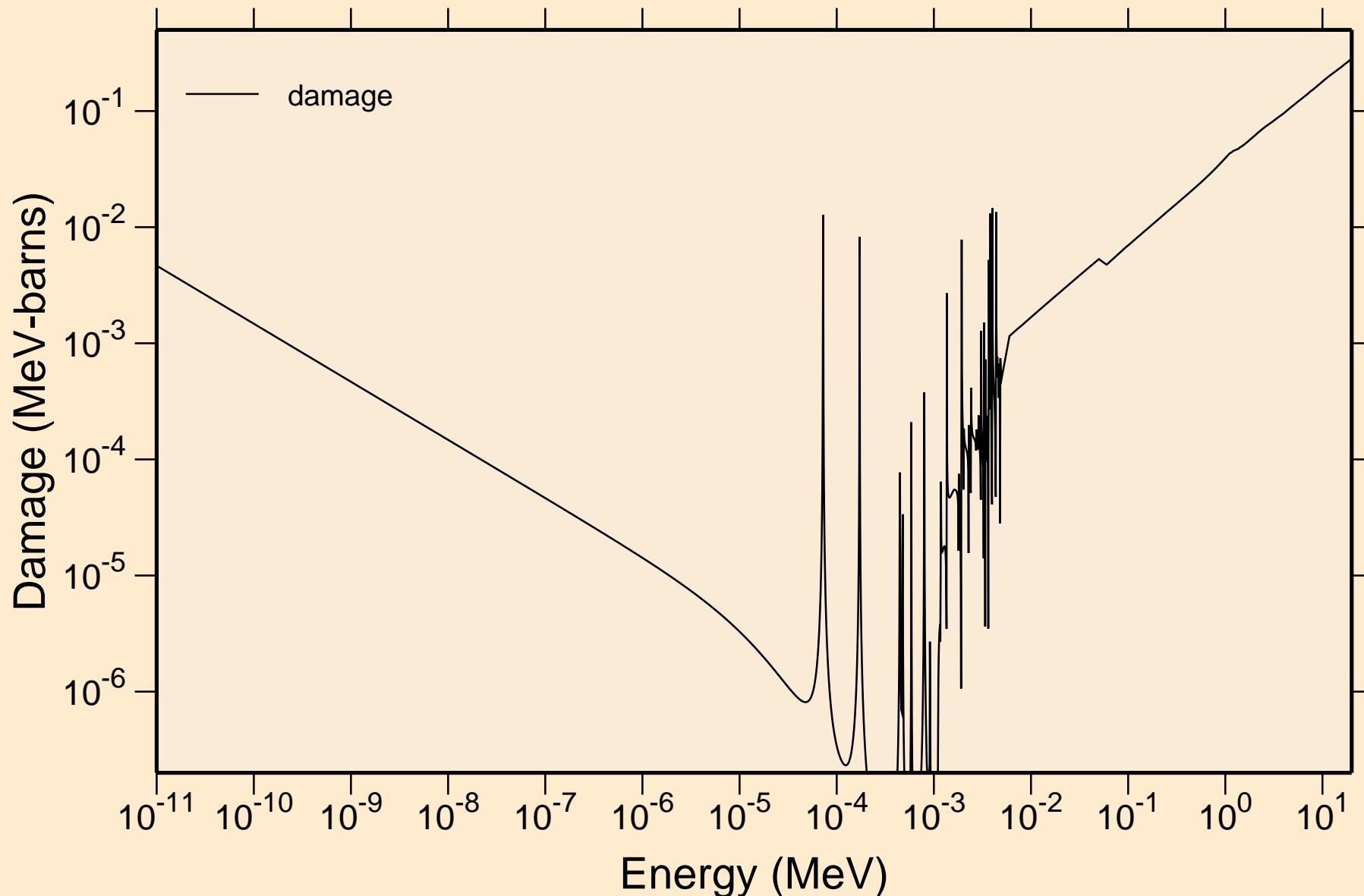
# ADVANCE CALCULATIONS

## Heating



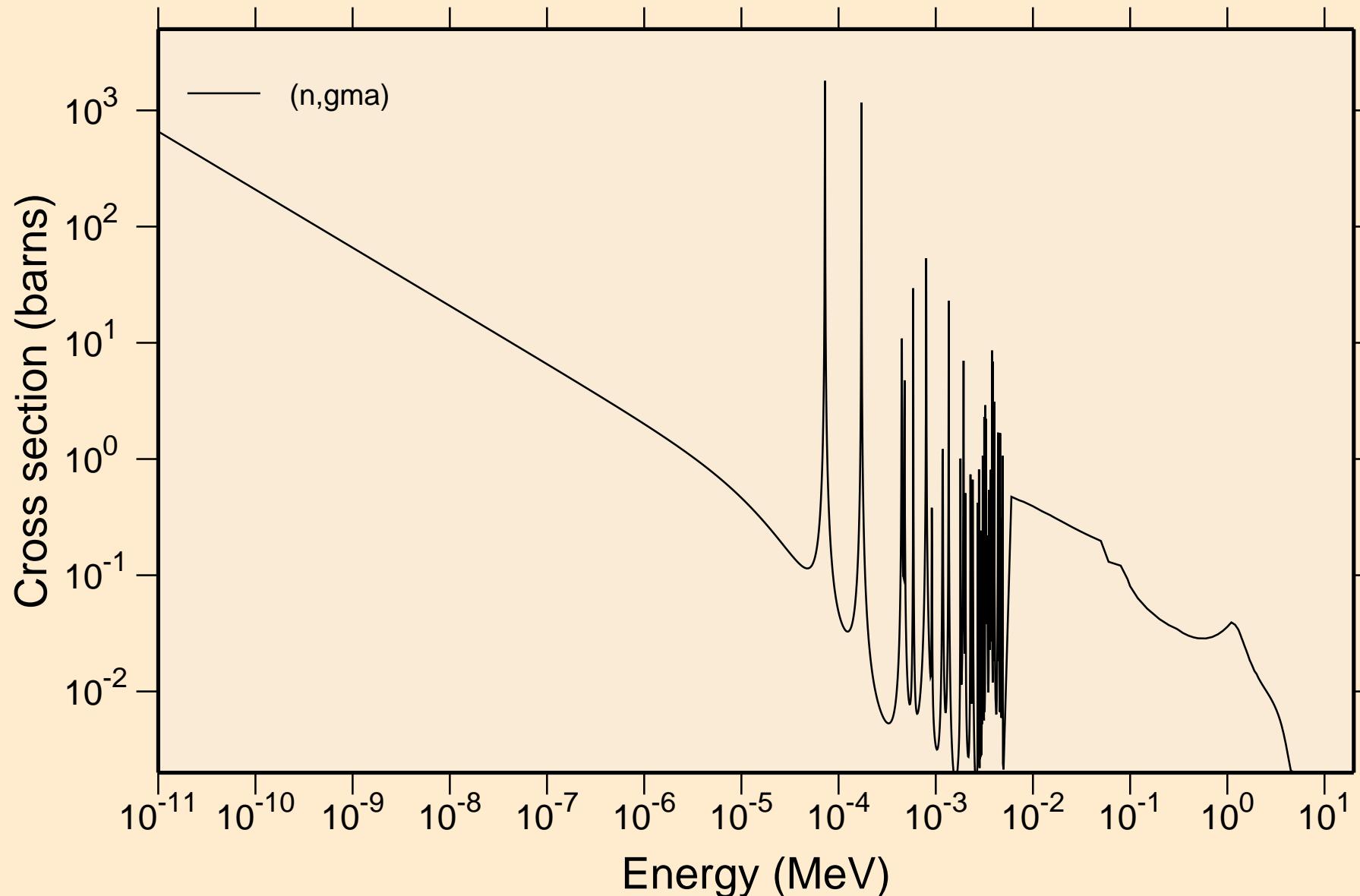
# ADVANCE CALCULATIONS

## Damage



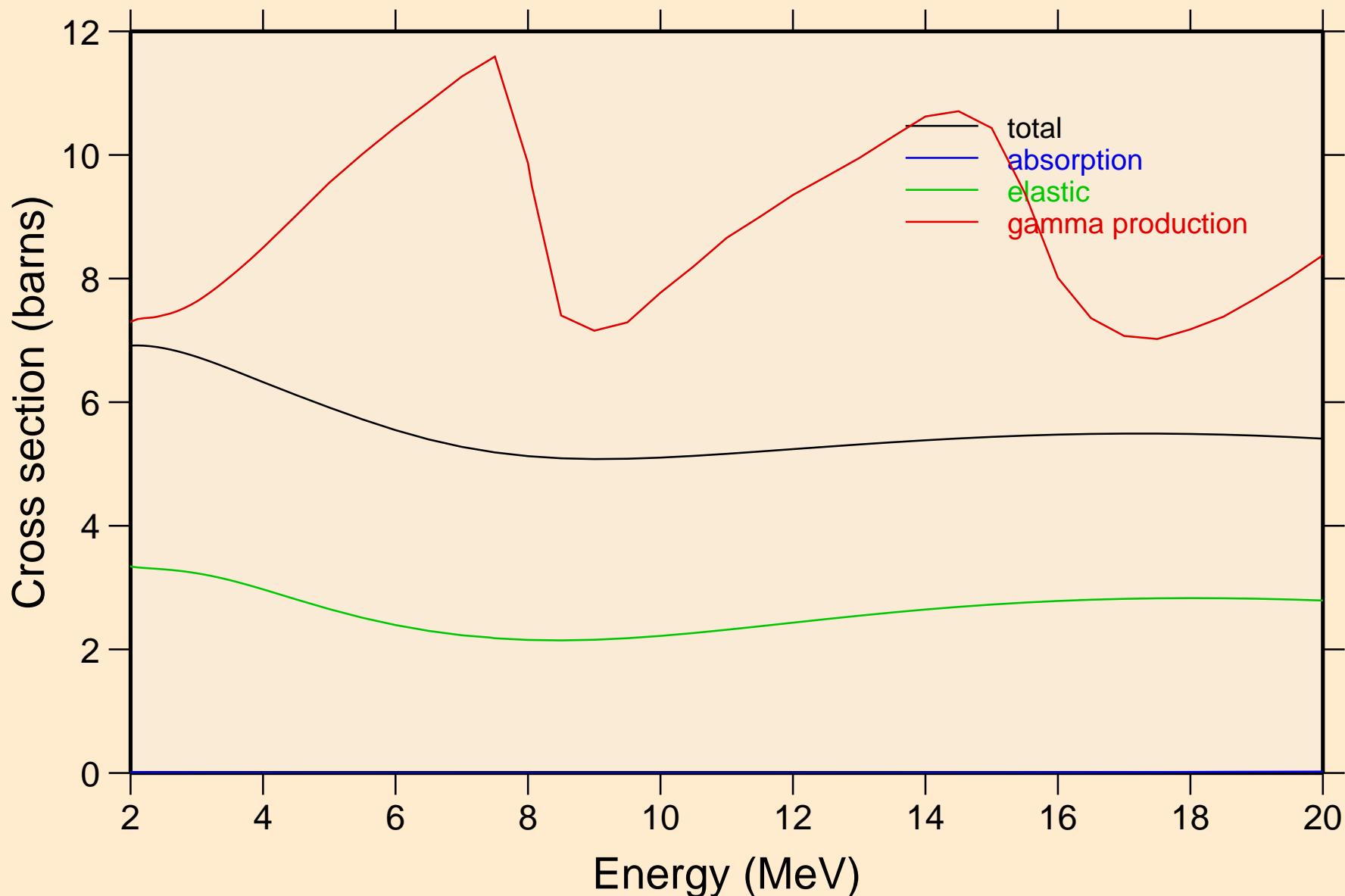
# ADVANCE CALCULATIONS

## Non-threshold reactions



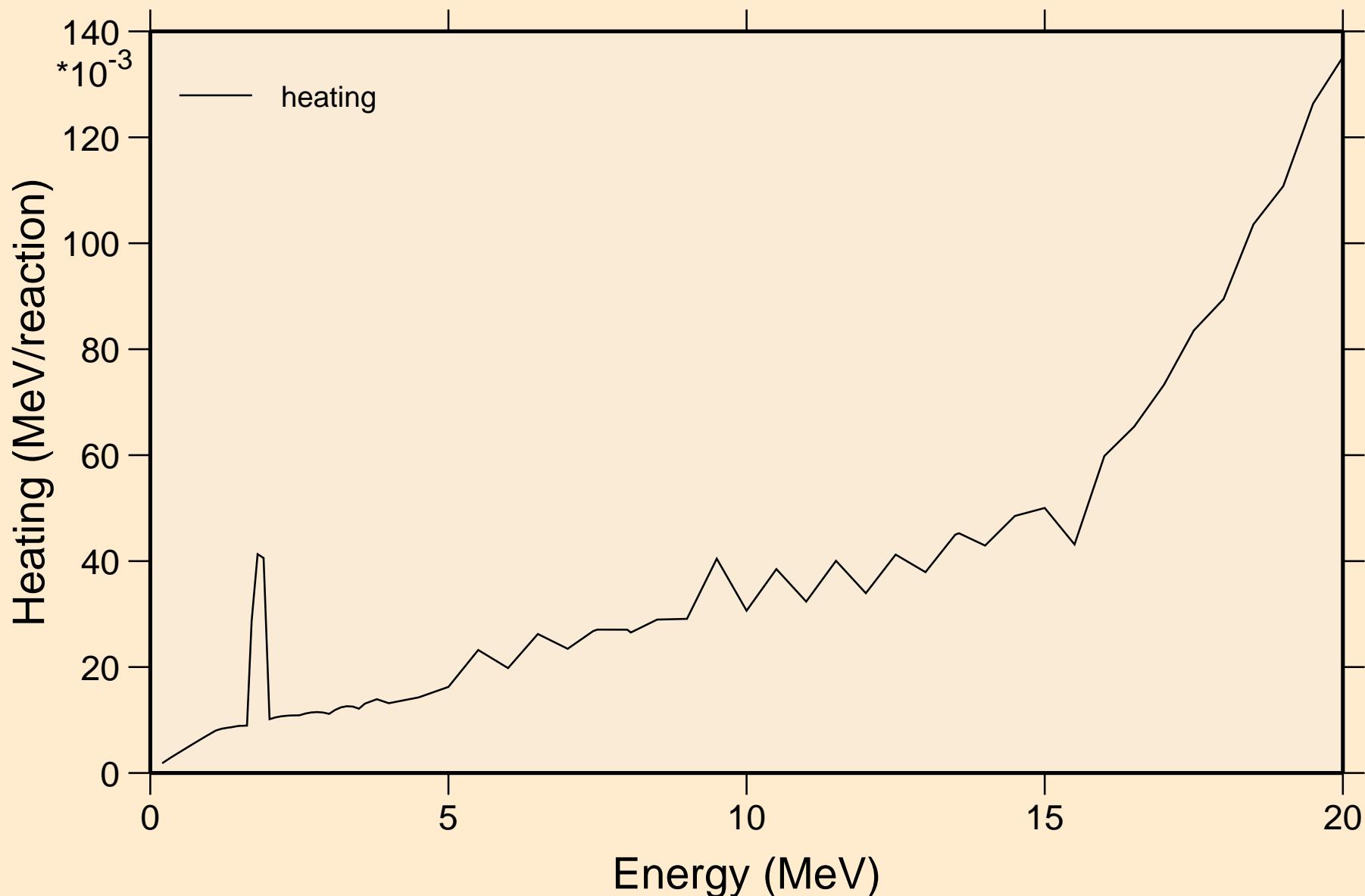
# ADVANCE CALCULATIONS

## Principal cross sections



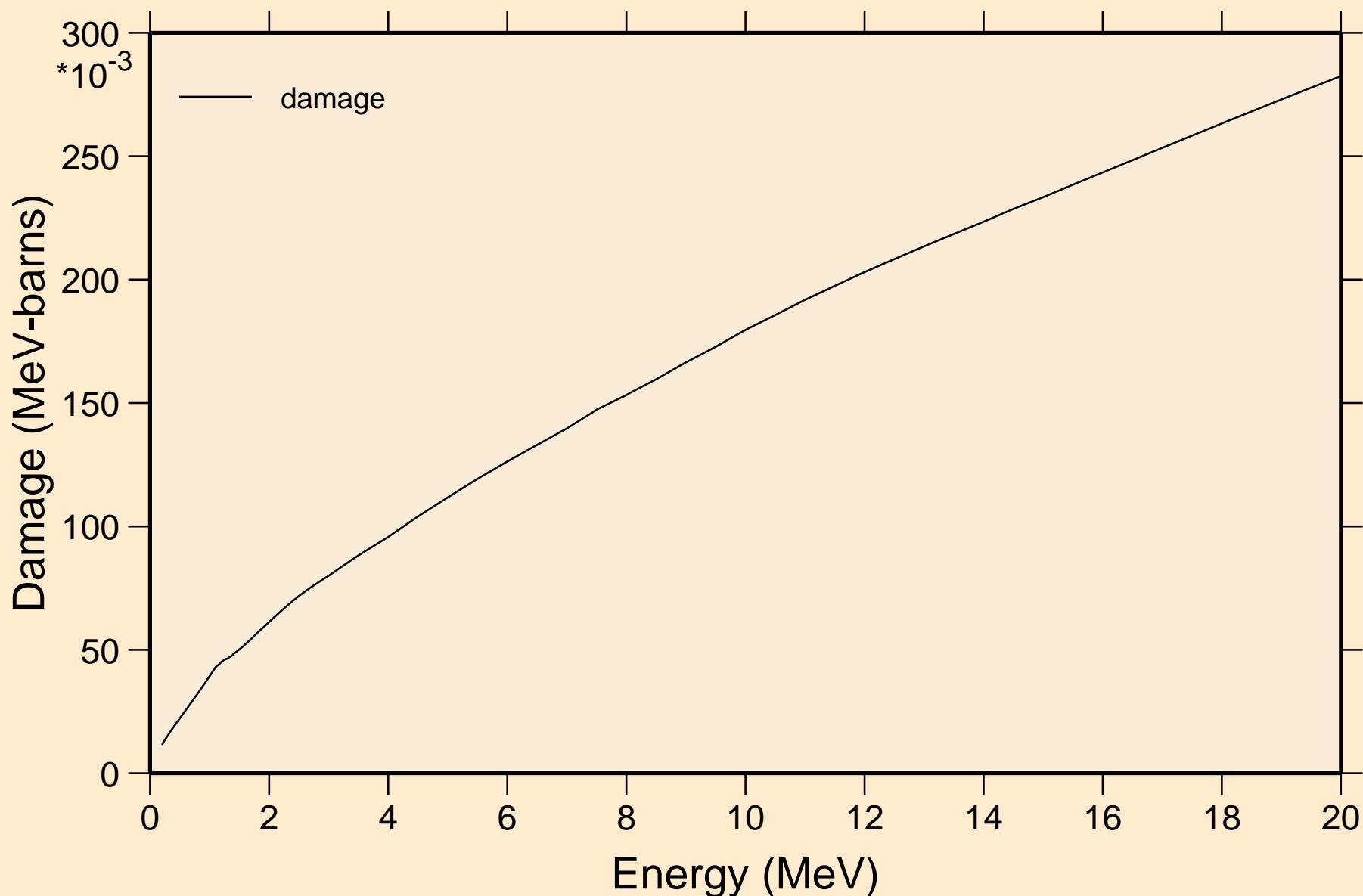
# ADVANCE CALCULATIONS

## Heating



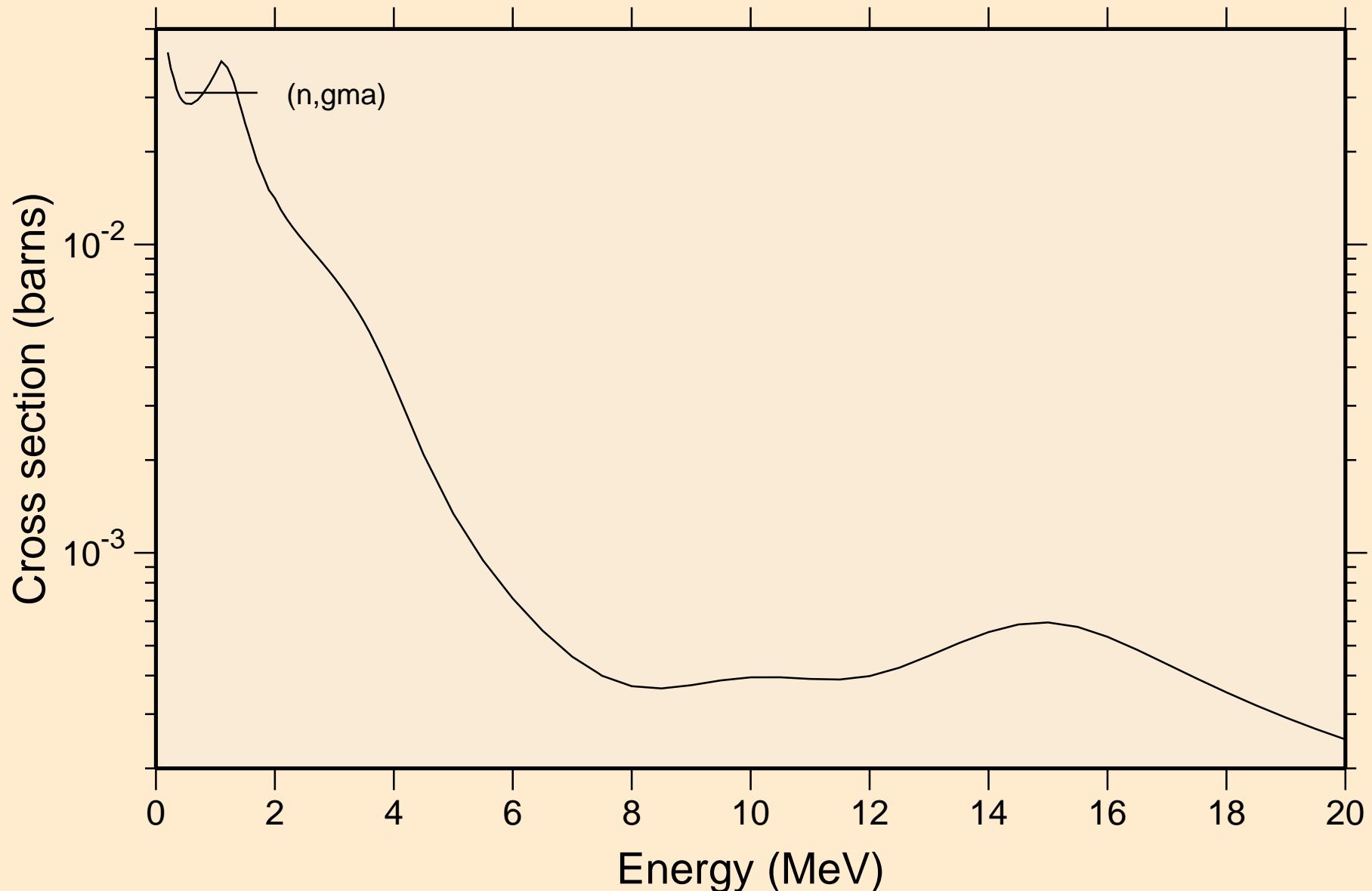
# ADVANCE CALCULATIONS

## Damage



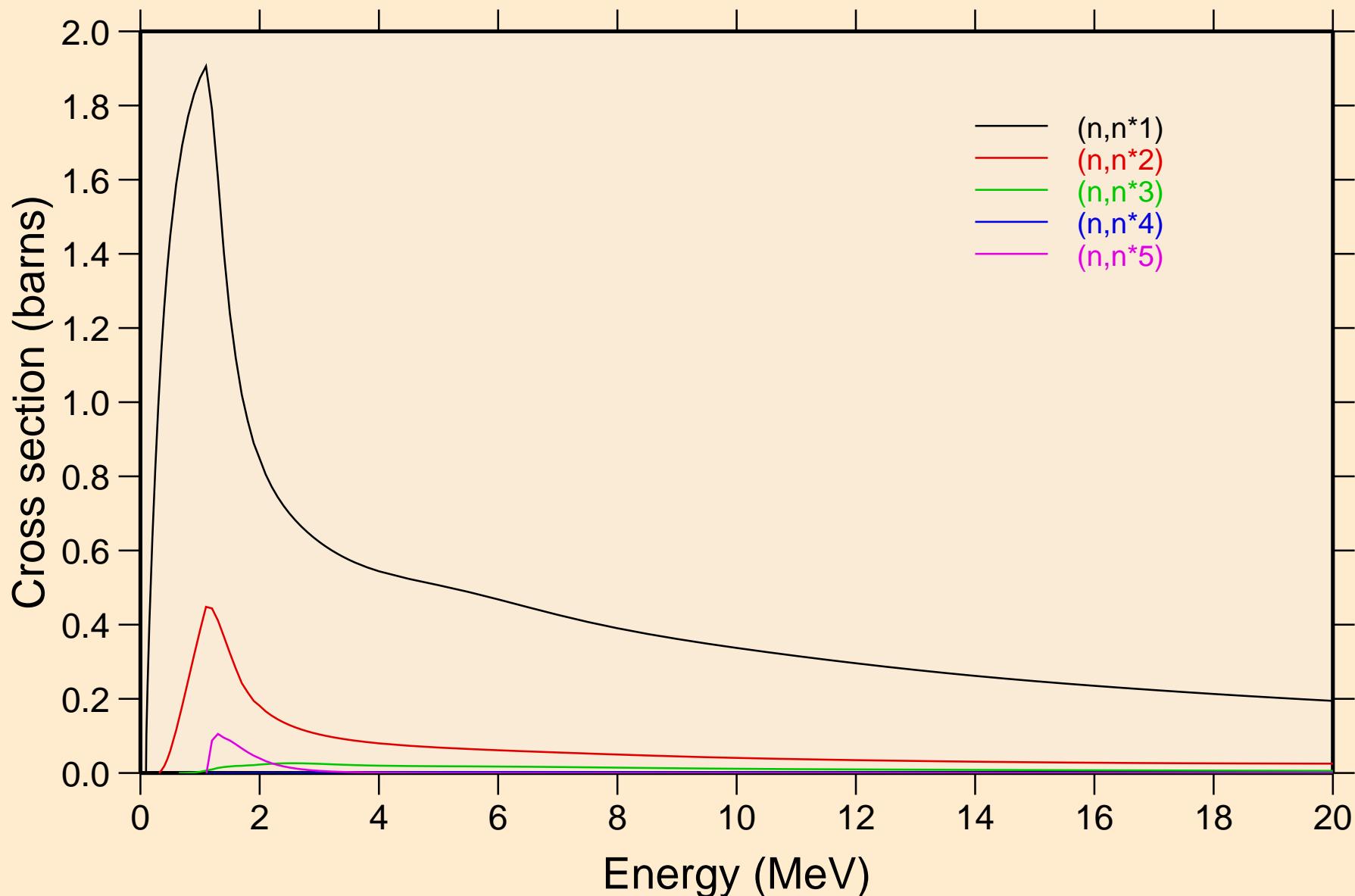
# ADVANCE CALCULATIONS

## Non-threshold reactions



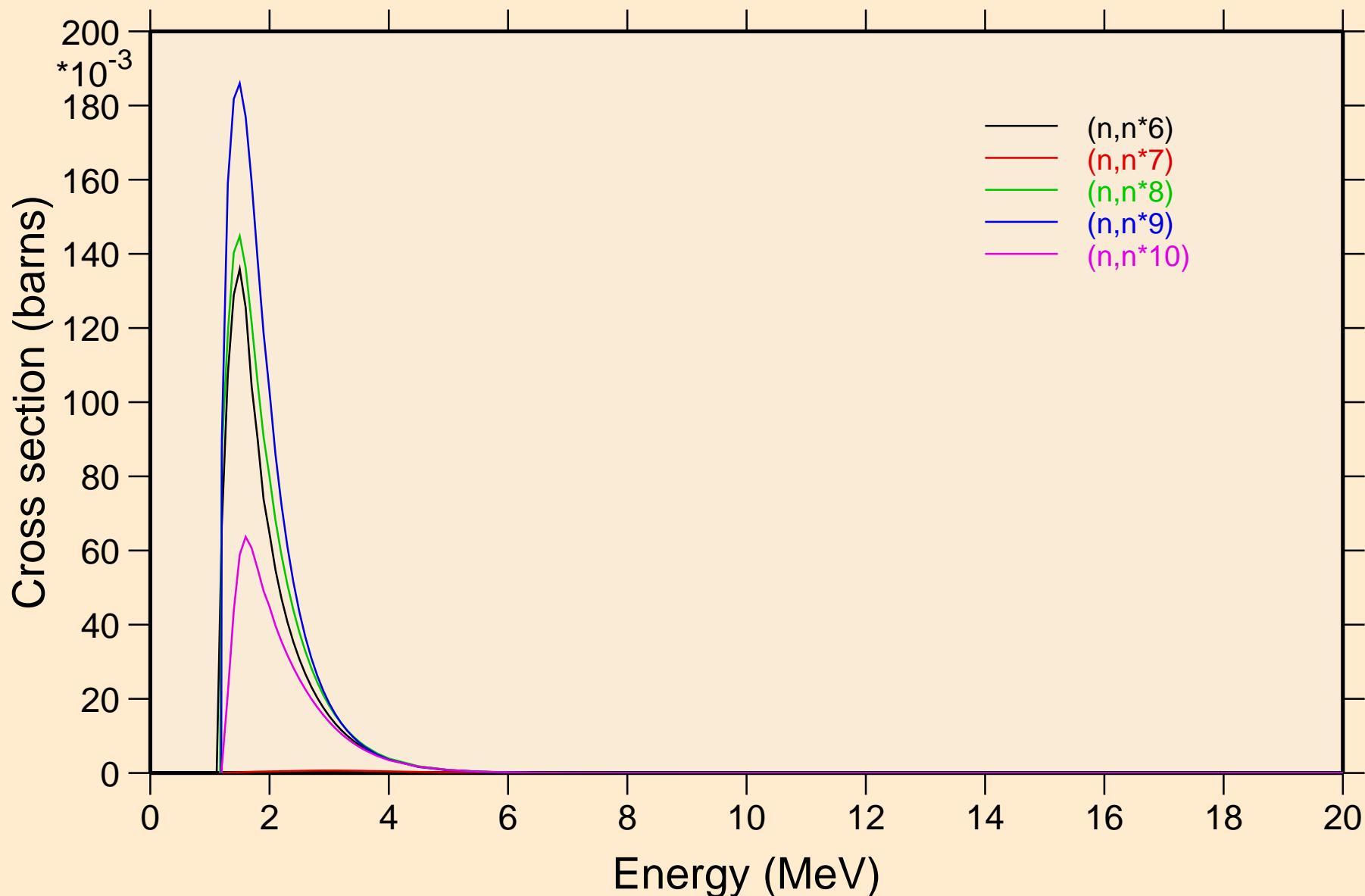
# ADVANCE CALCULATIONS

## Inelastic levels



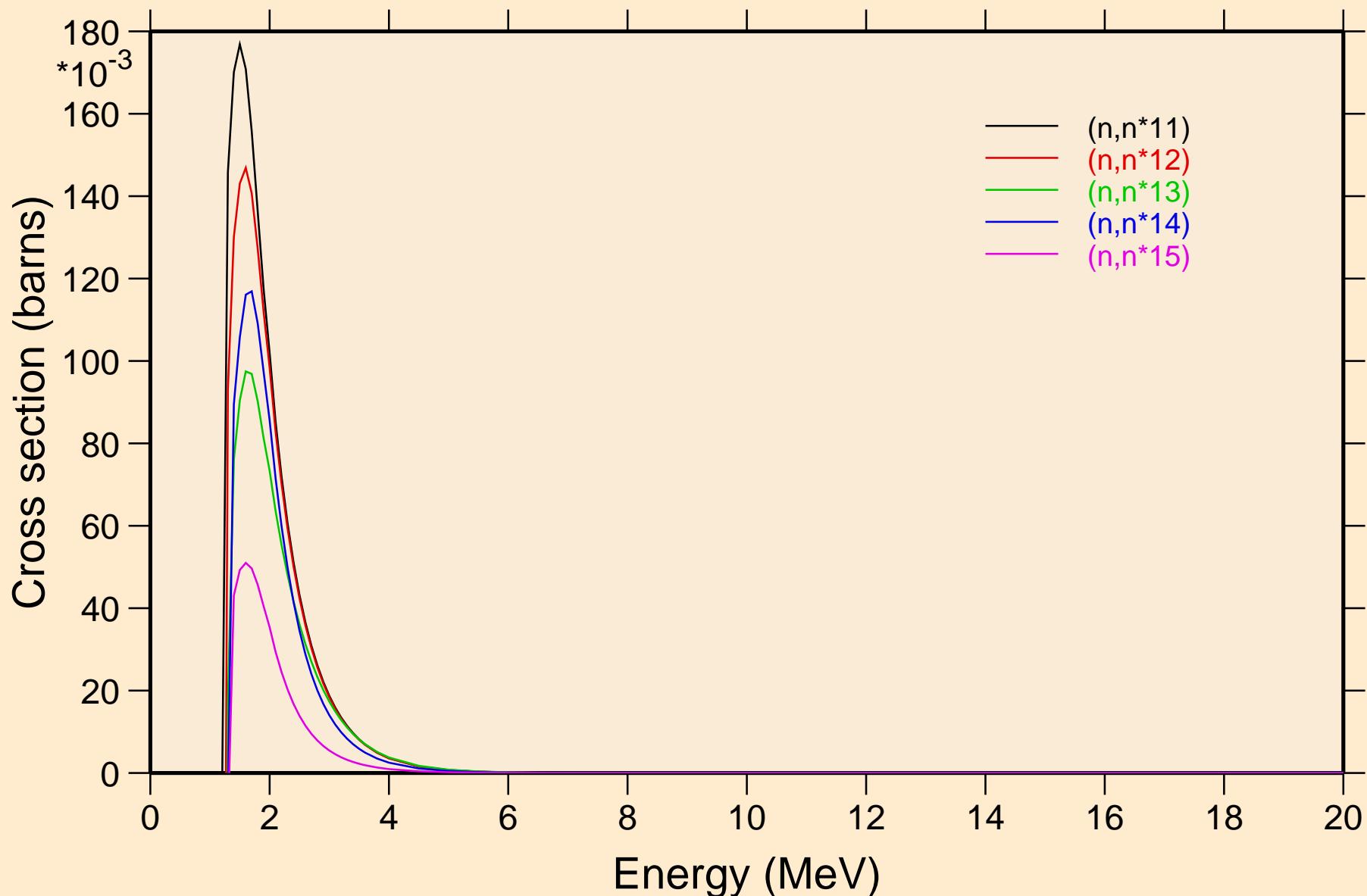
# ADVANCE CALCULATIONS

## Inelastic levels



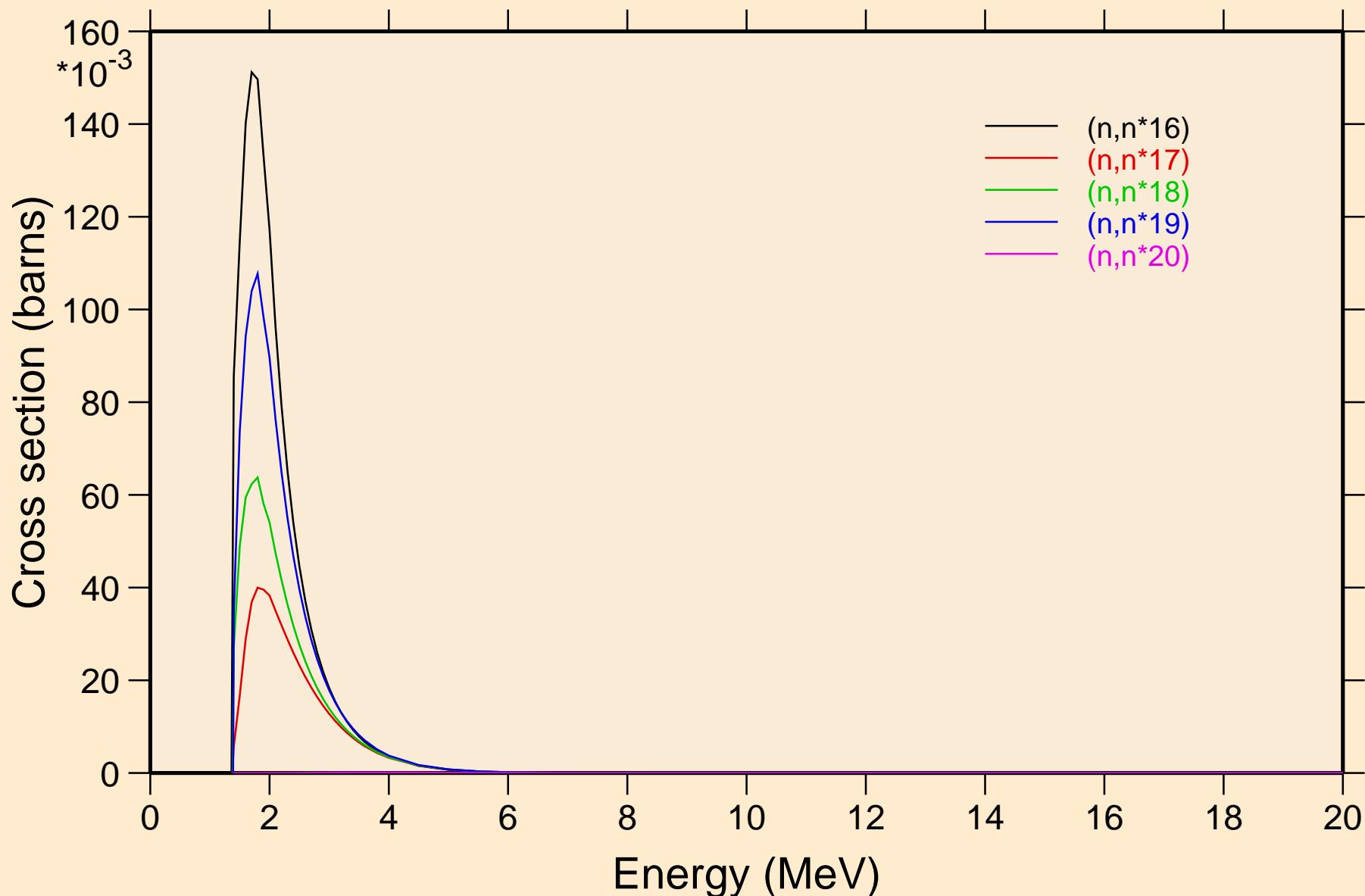
# ADVANCE CALCULATIONS

## Inelastic levels



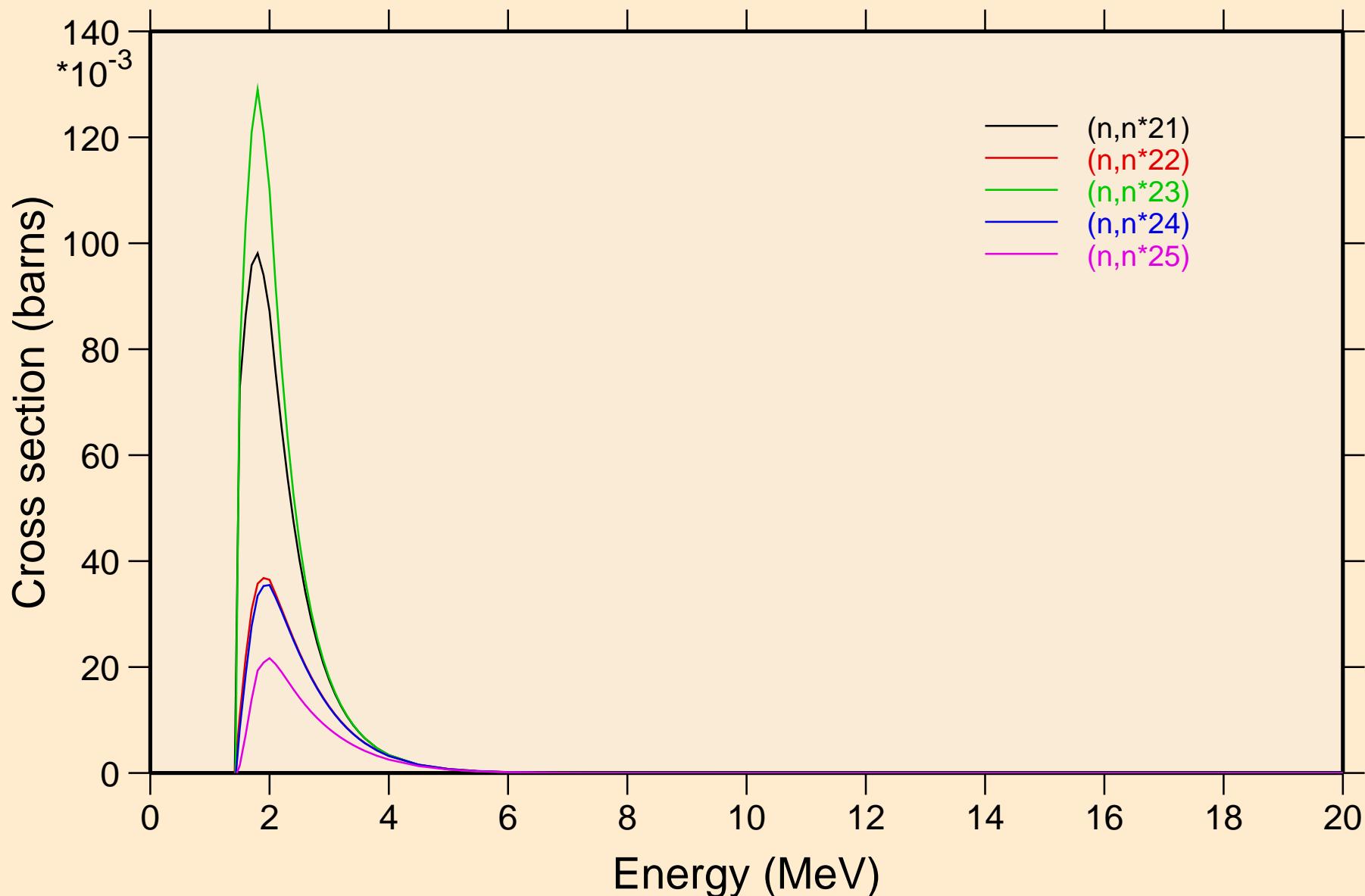
# ADVANCE CALCULATIONS

## Inelastic levels



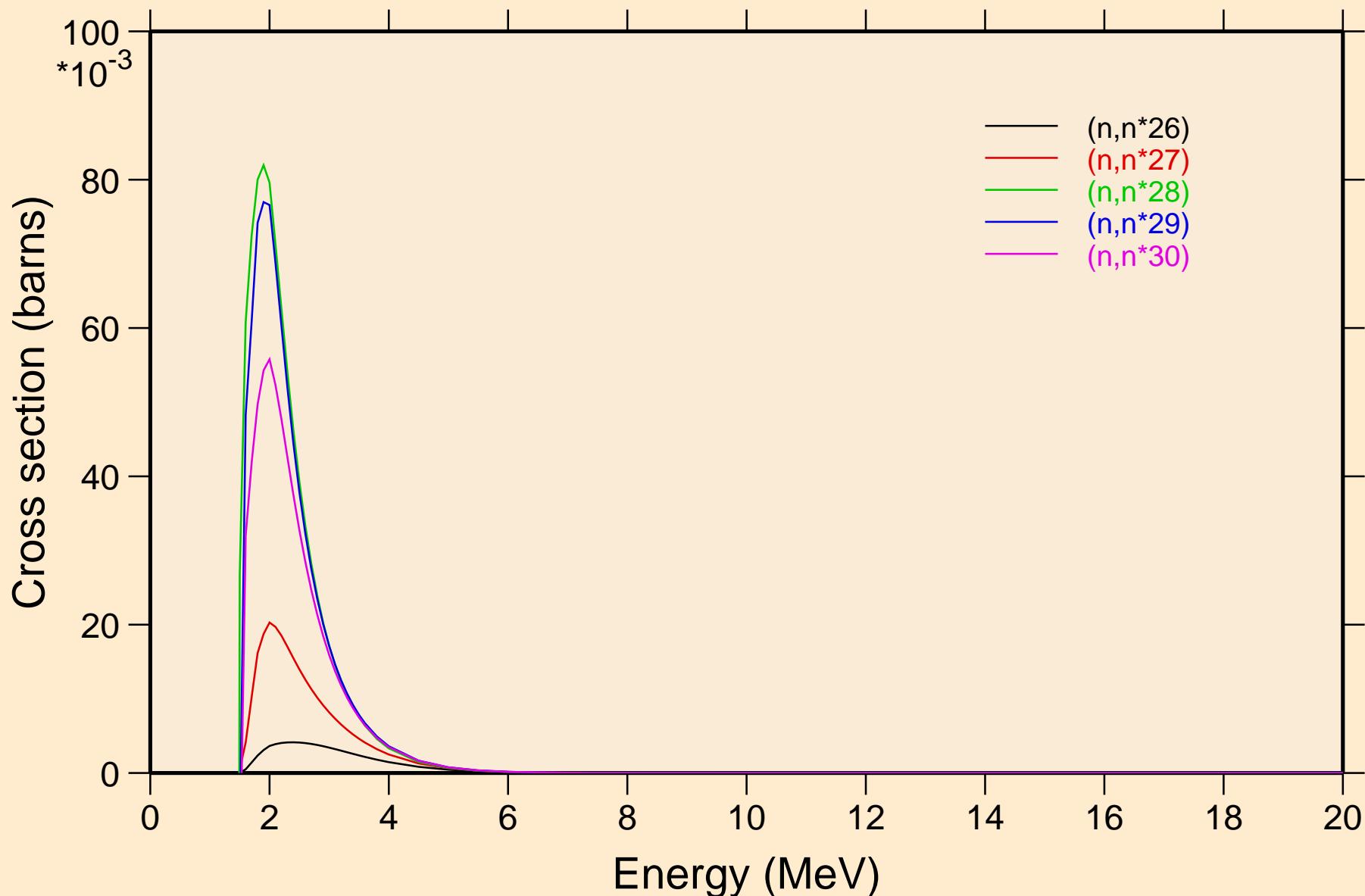
# ADVANCE CALCULATIONS

## Inelastic levels



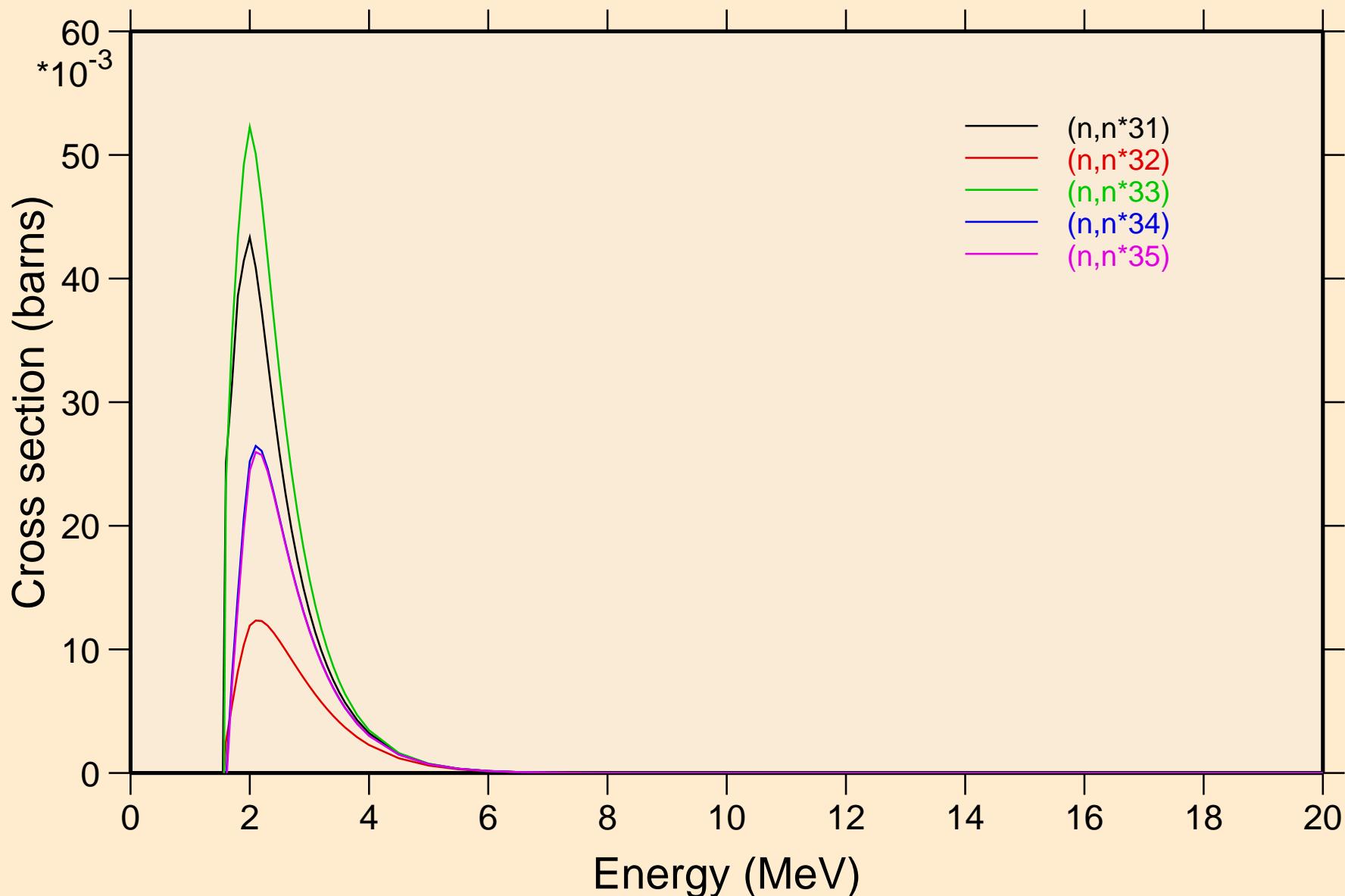
# ADVANCE CALCULATIONS

## Inelastic levels



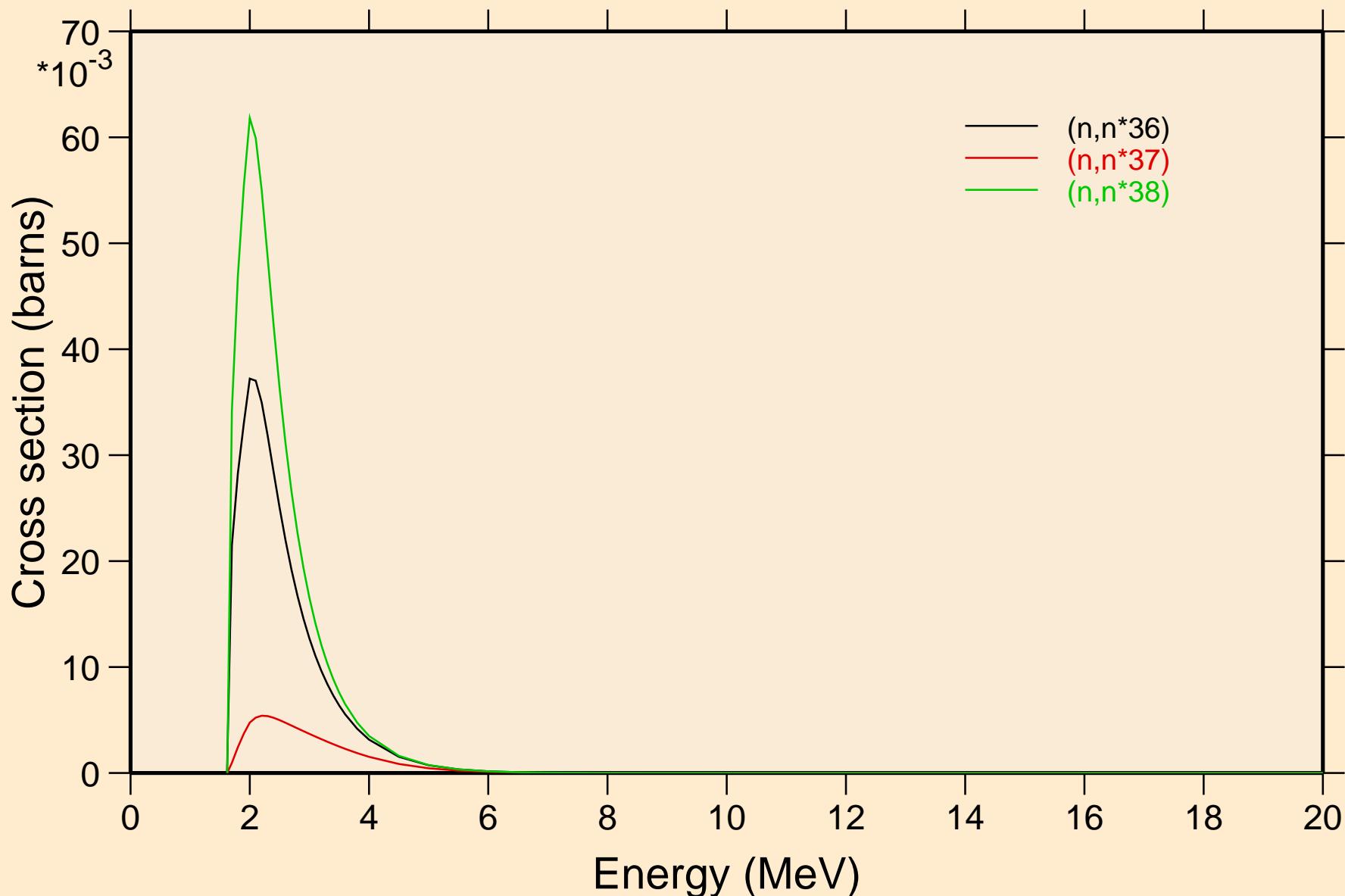
# ADVANCE CALCULATIONS

## Inelastic levels



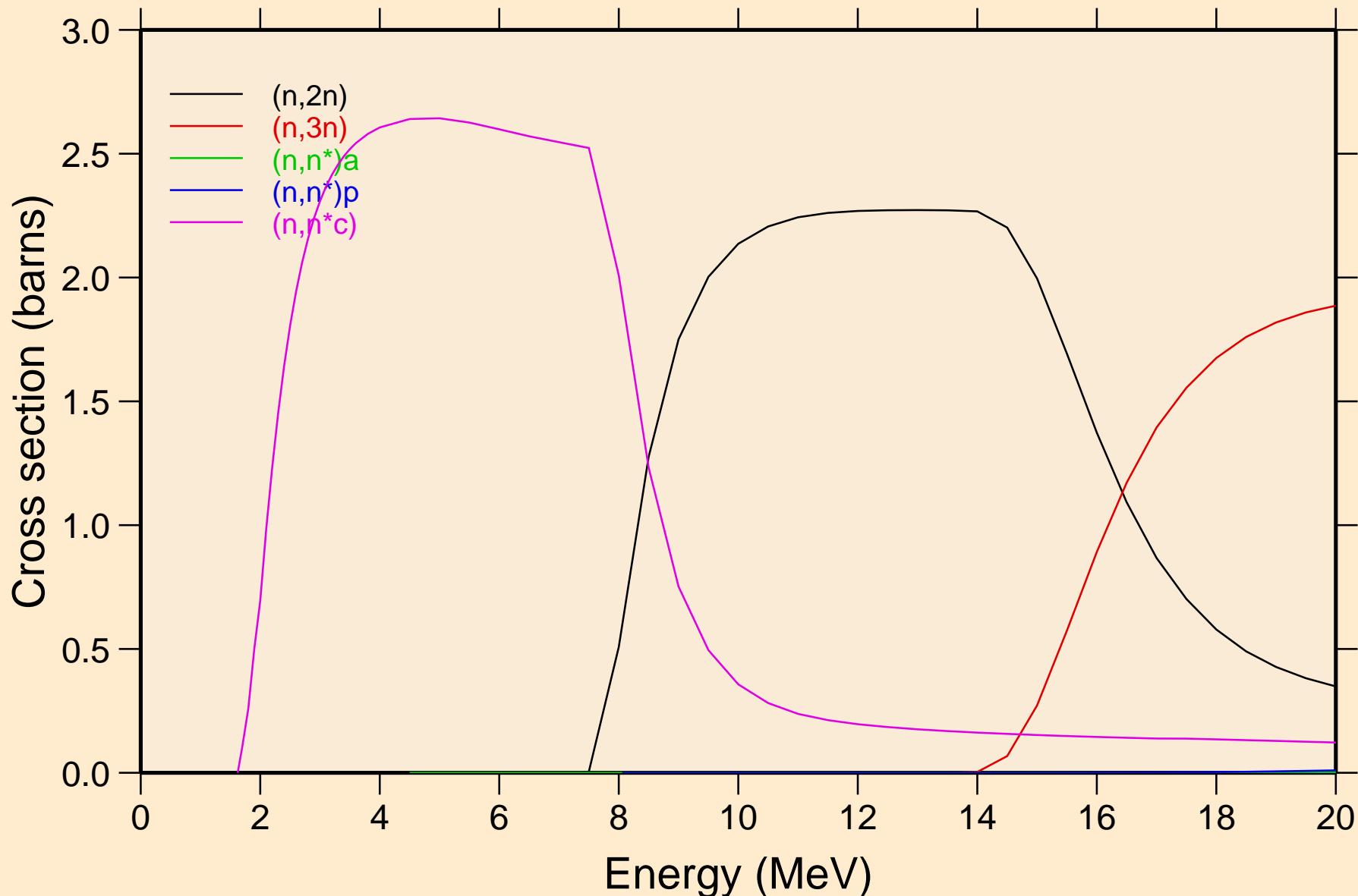
# ADVANCE CALCULATIONS

## Inelastic levels



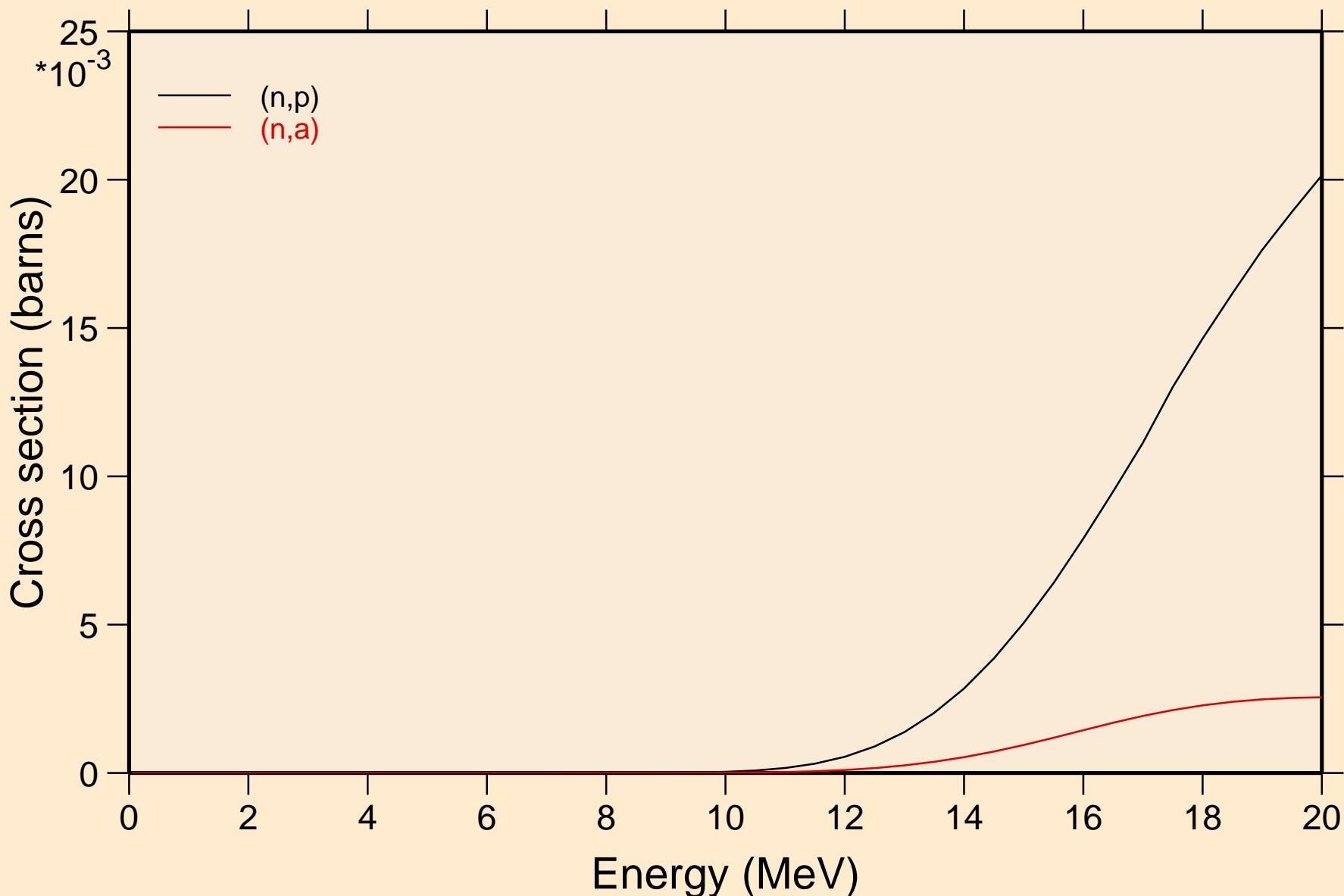
# ADVANCE CALCULATIONS

## Threshold reactions



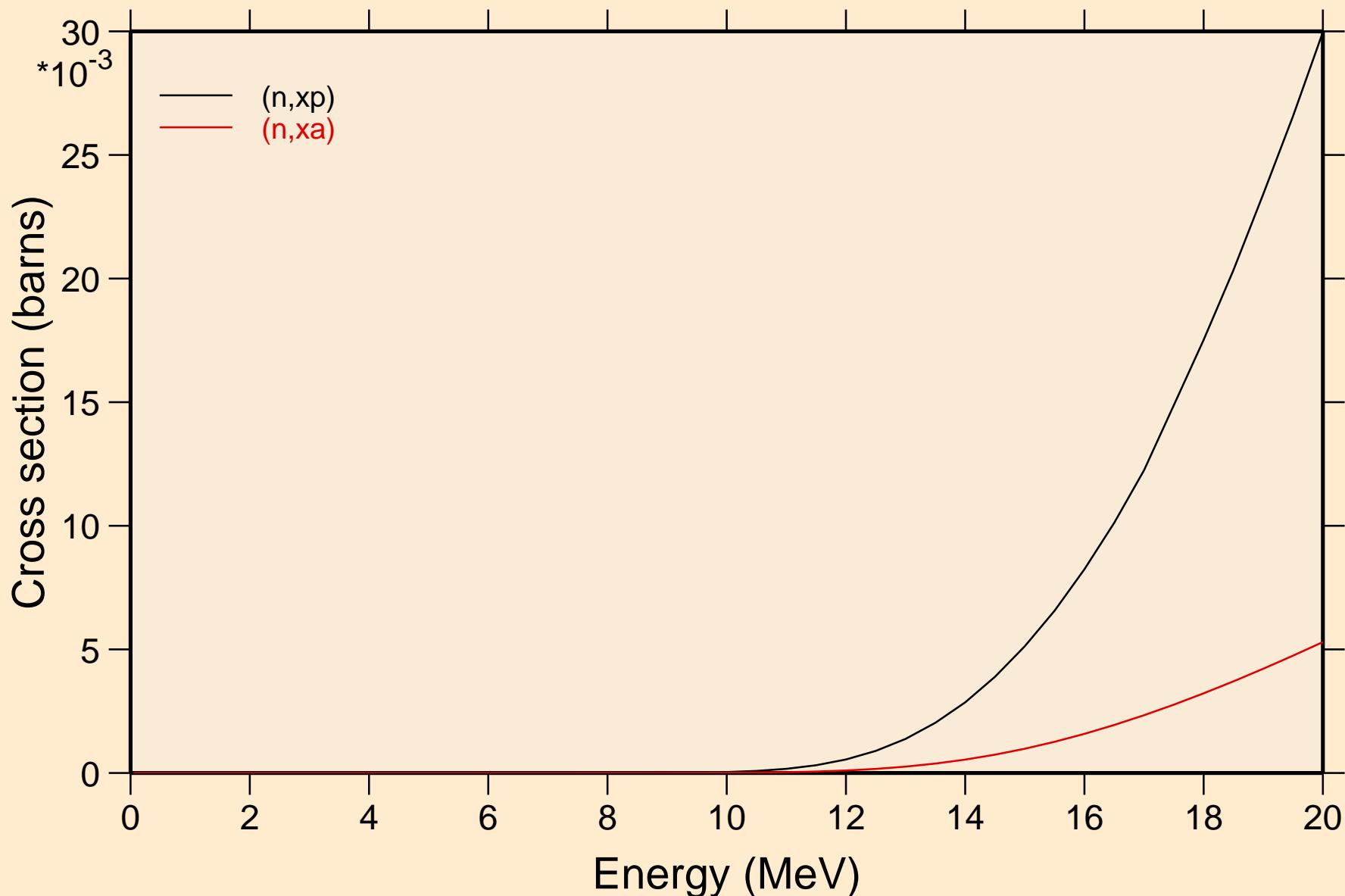
# ADVANCE CALCULATIONS

## Threshold reactions



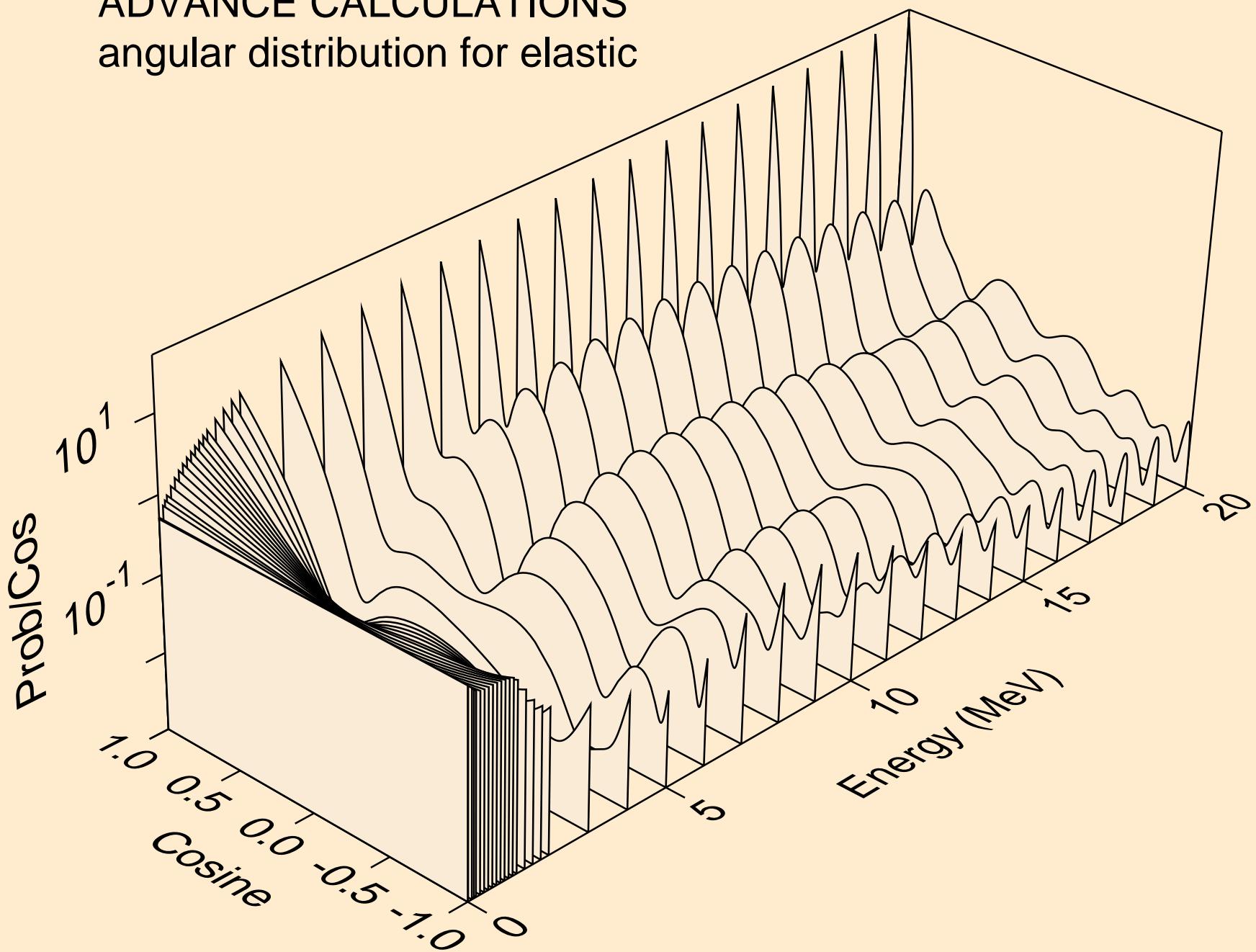
# ADVANCE CALCULATIONS

## Threshold reactions



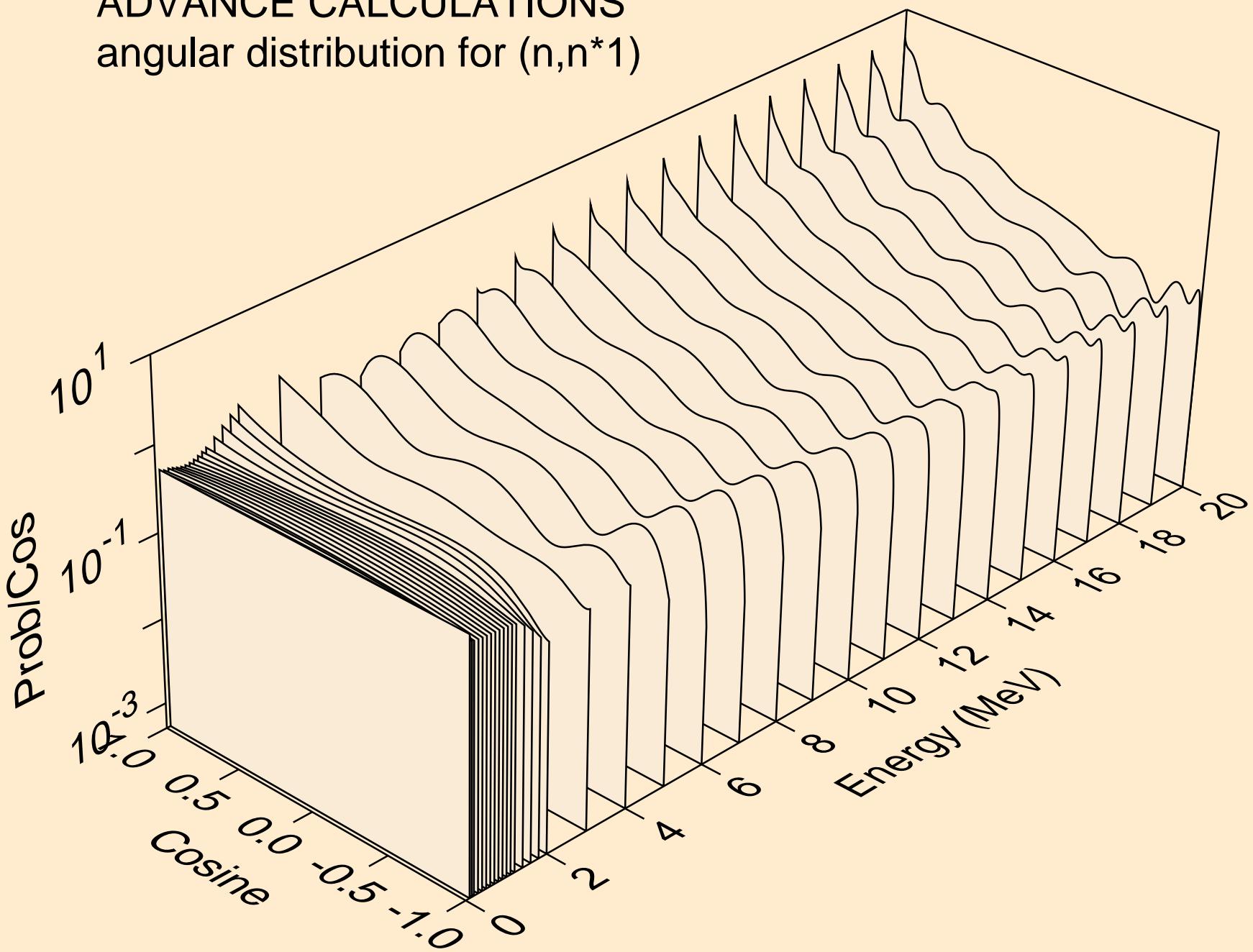
# ADVANCE CALCULATIONS

angular distribution for elastic



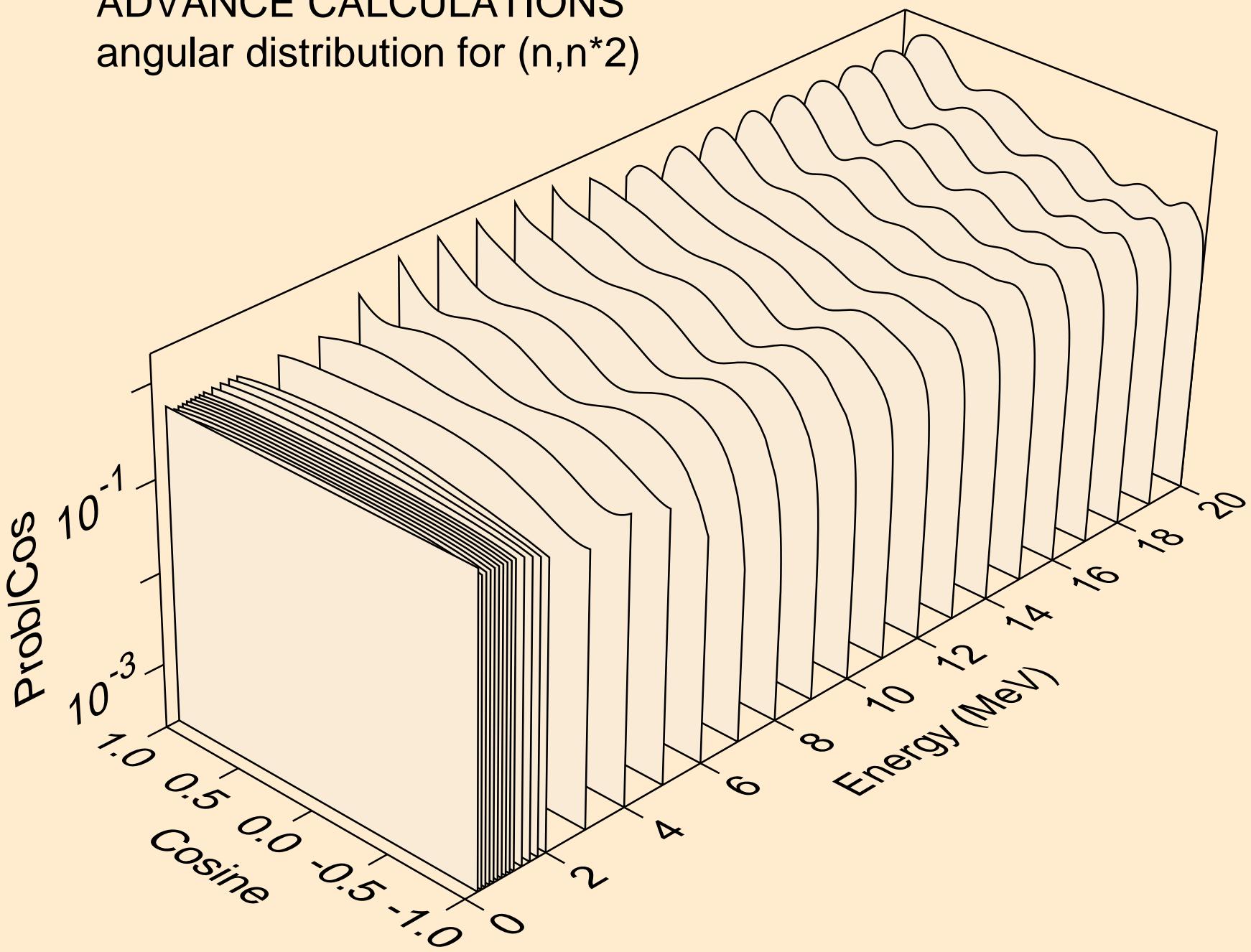
# ADVANCE CALCULATIONS

## angular distribution for (n,n\*1)



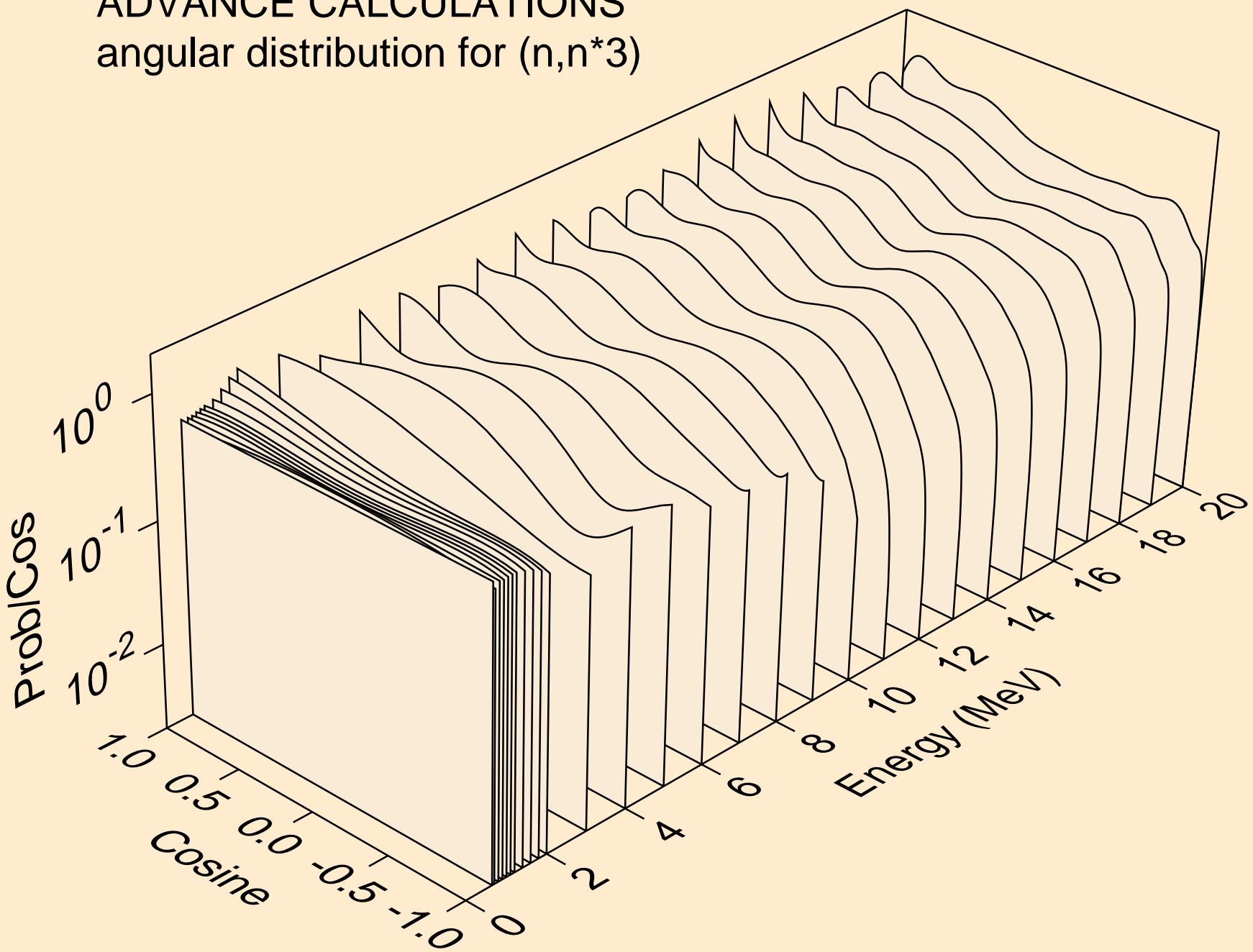
# ADVANCE CALCULATIONS

angular distribution for  $(n, n^*2)$



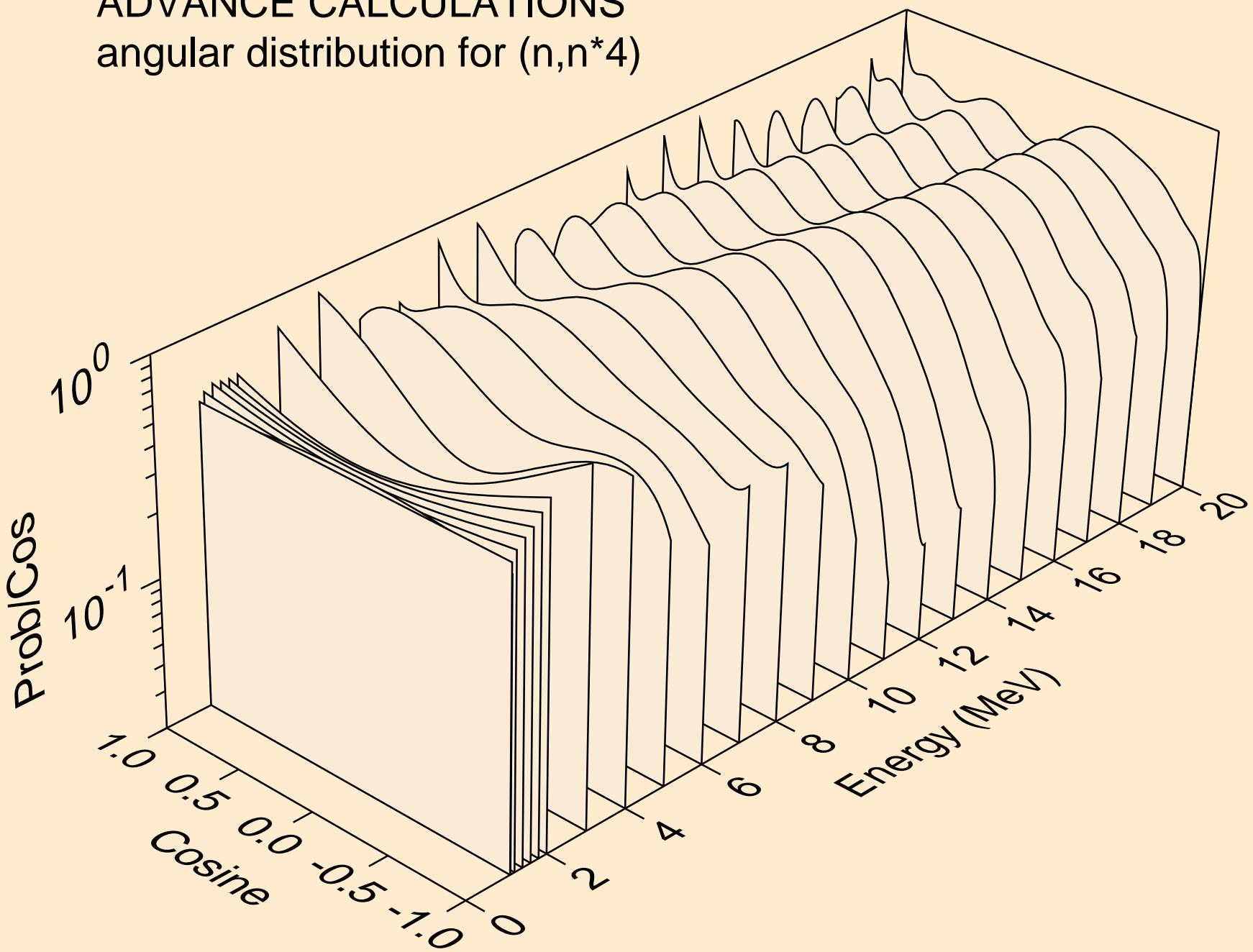
# ADVANCE CALCULATIONS

angular distribution for  $(n,n^*)^3$



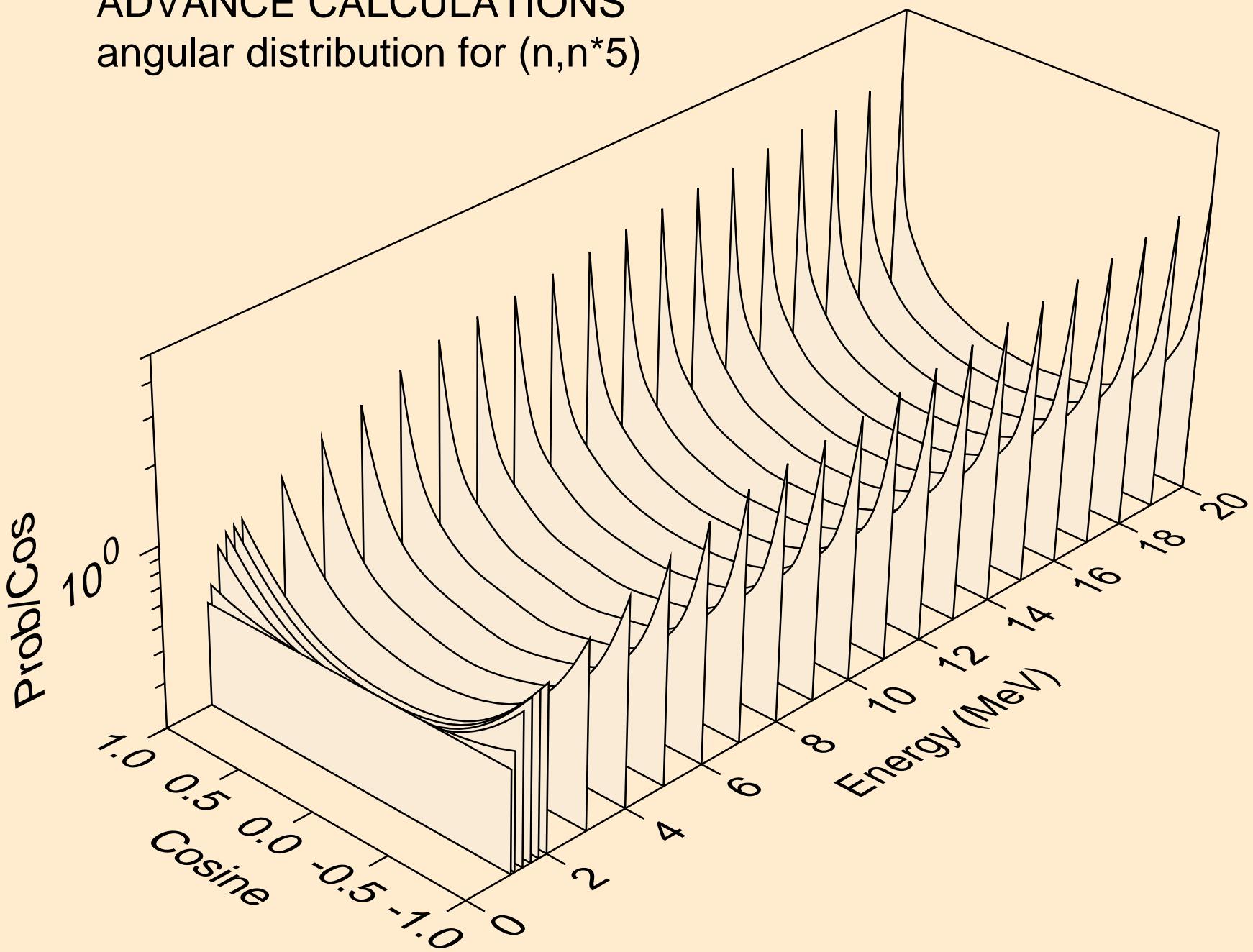
# ADVANCE CALCULATIONS

angular distribution for  $(n,n^*4)$



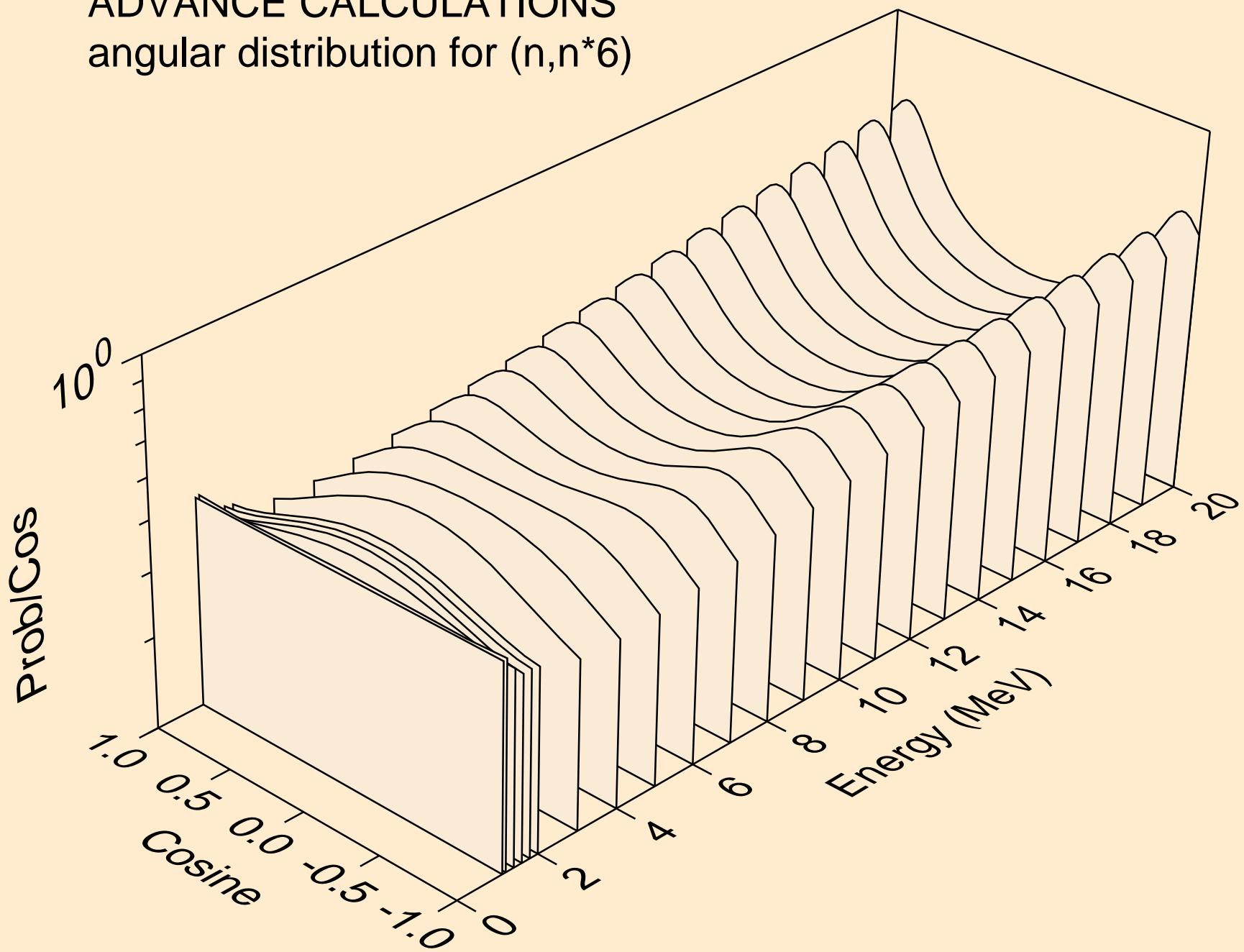
# ADVANCE CALCULATIONS

## angular distribution for $(n,n^*)^5$



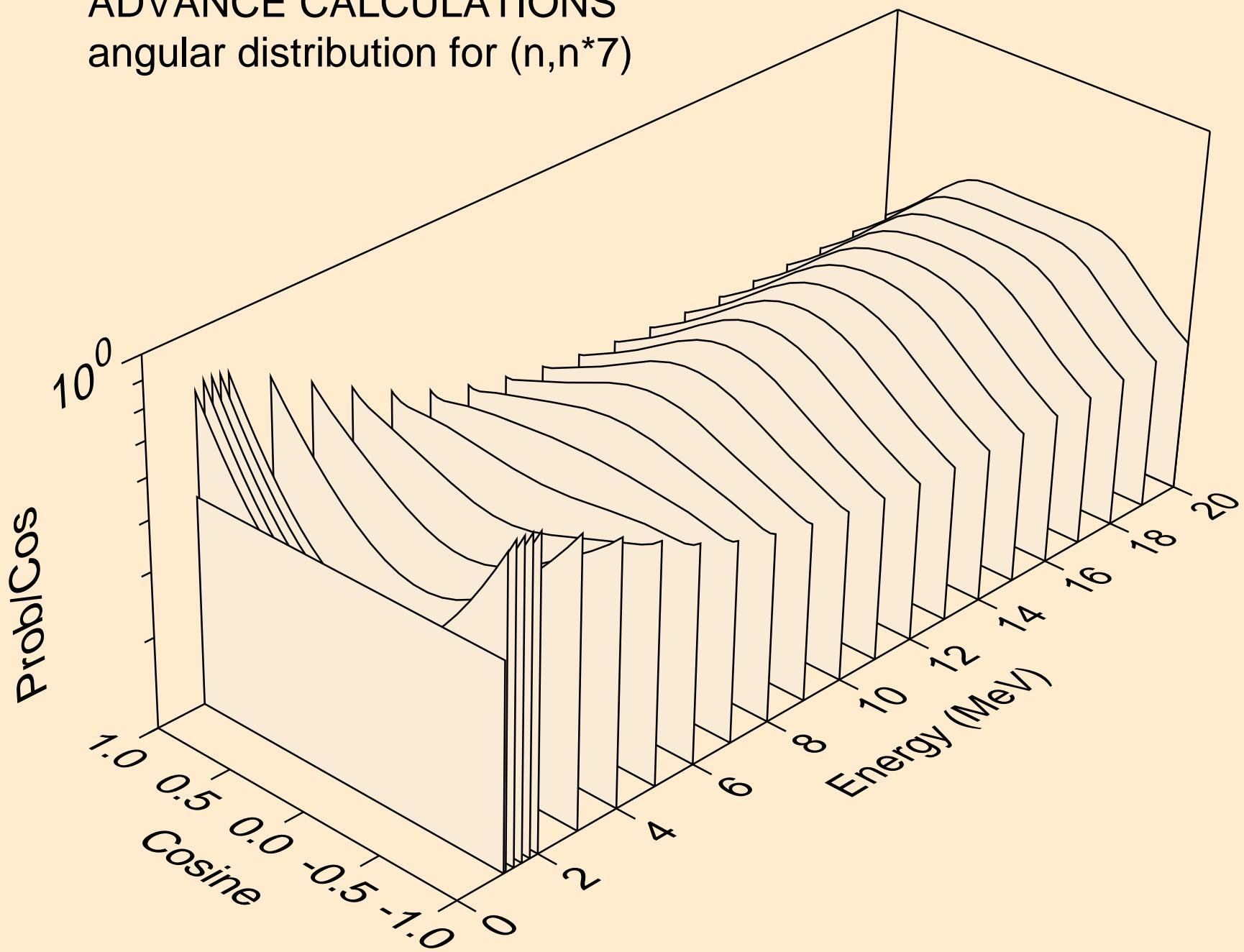
# ADVANCE CALCULATIONS

angular distribution for  $(n,n^*6)$



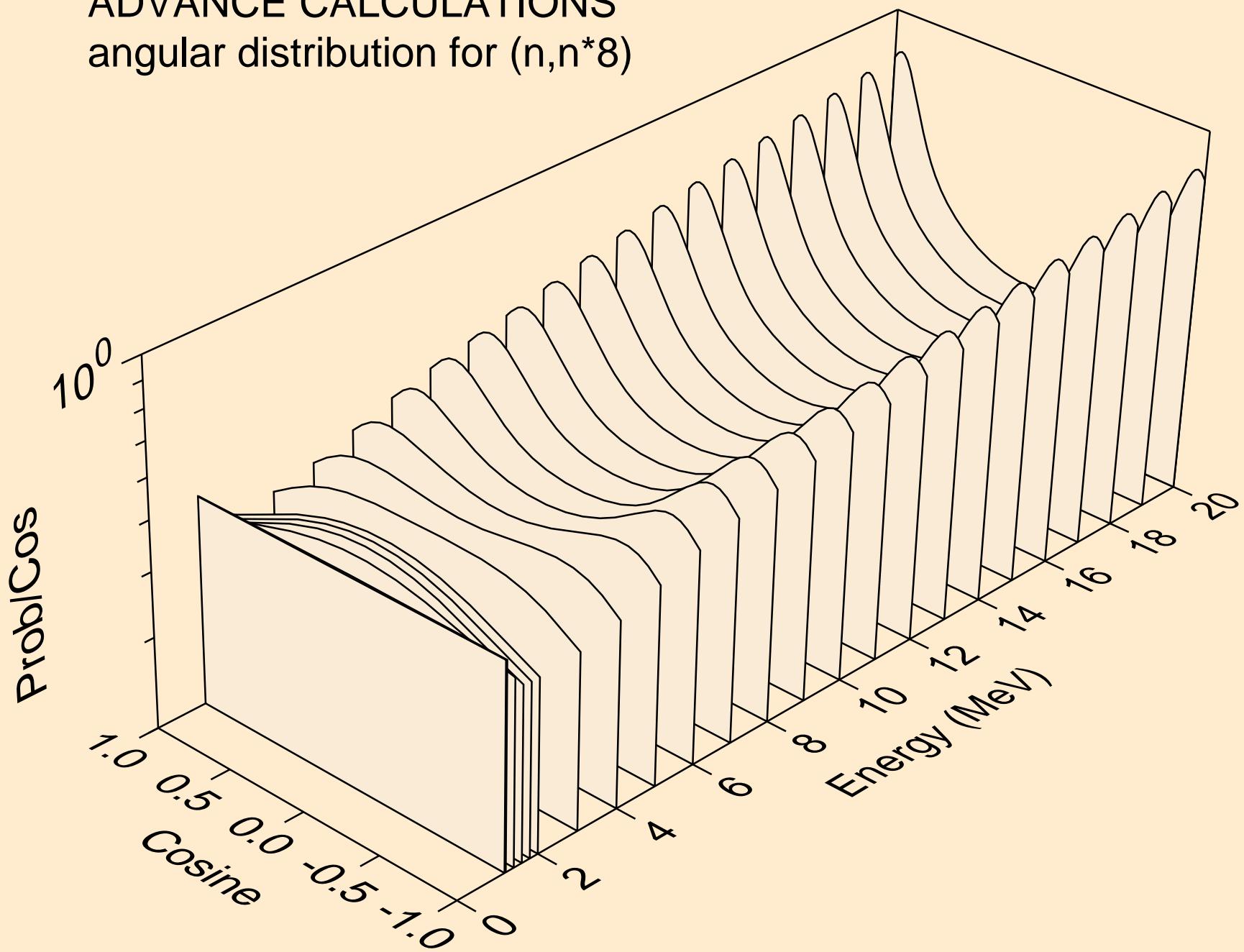
# ADVANCE CALCULATIONS

## angular distribution for $(n,n^*)^7$



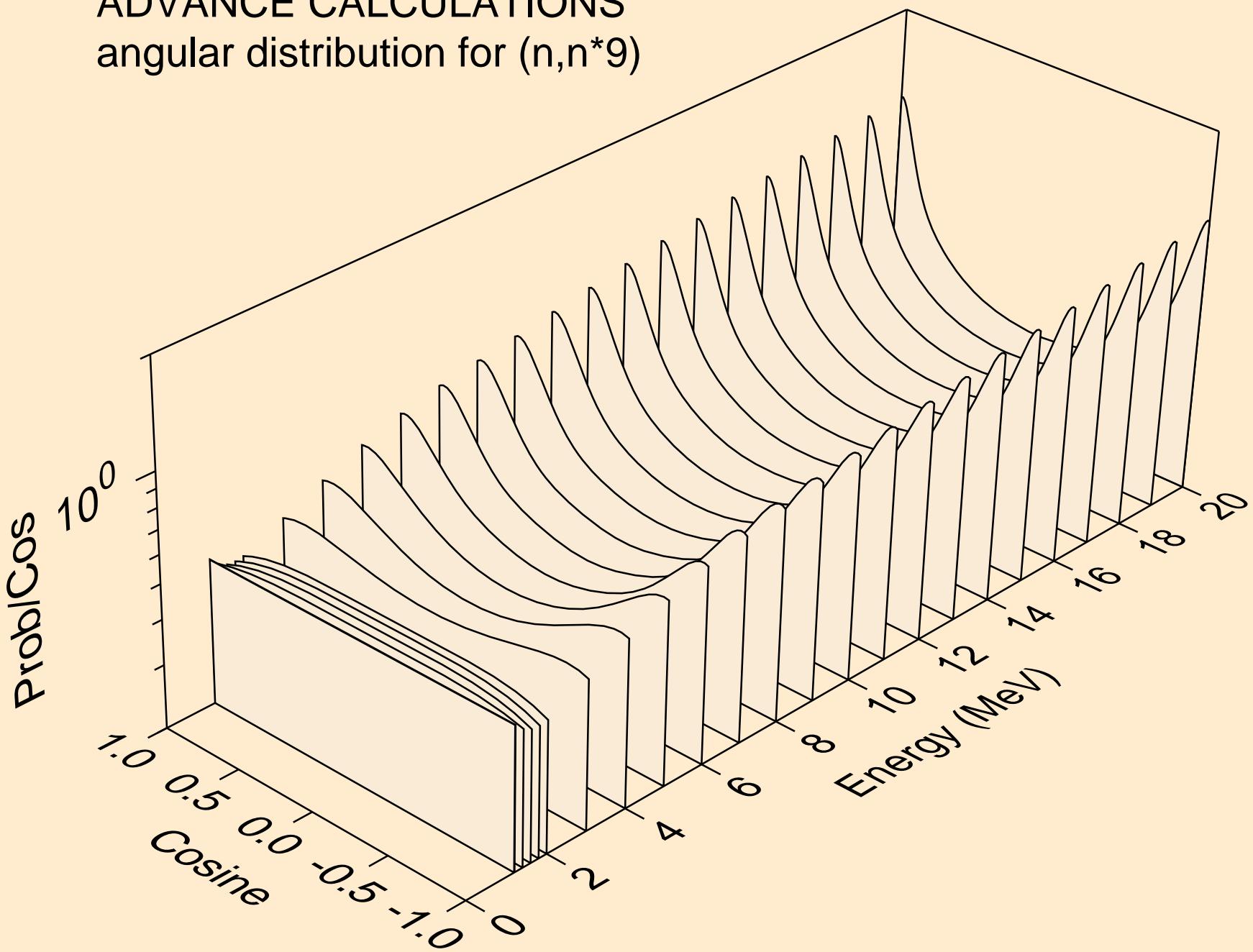
# ADVANCE CALCULATIONS

angular distribution for  $(n,n^*8)$



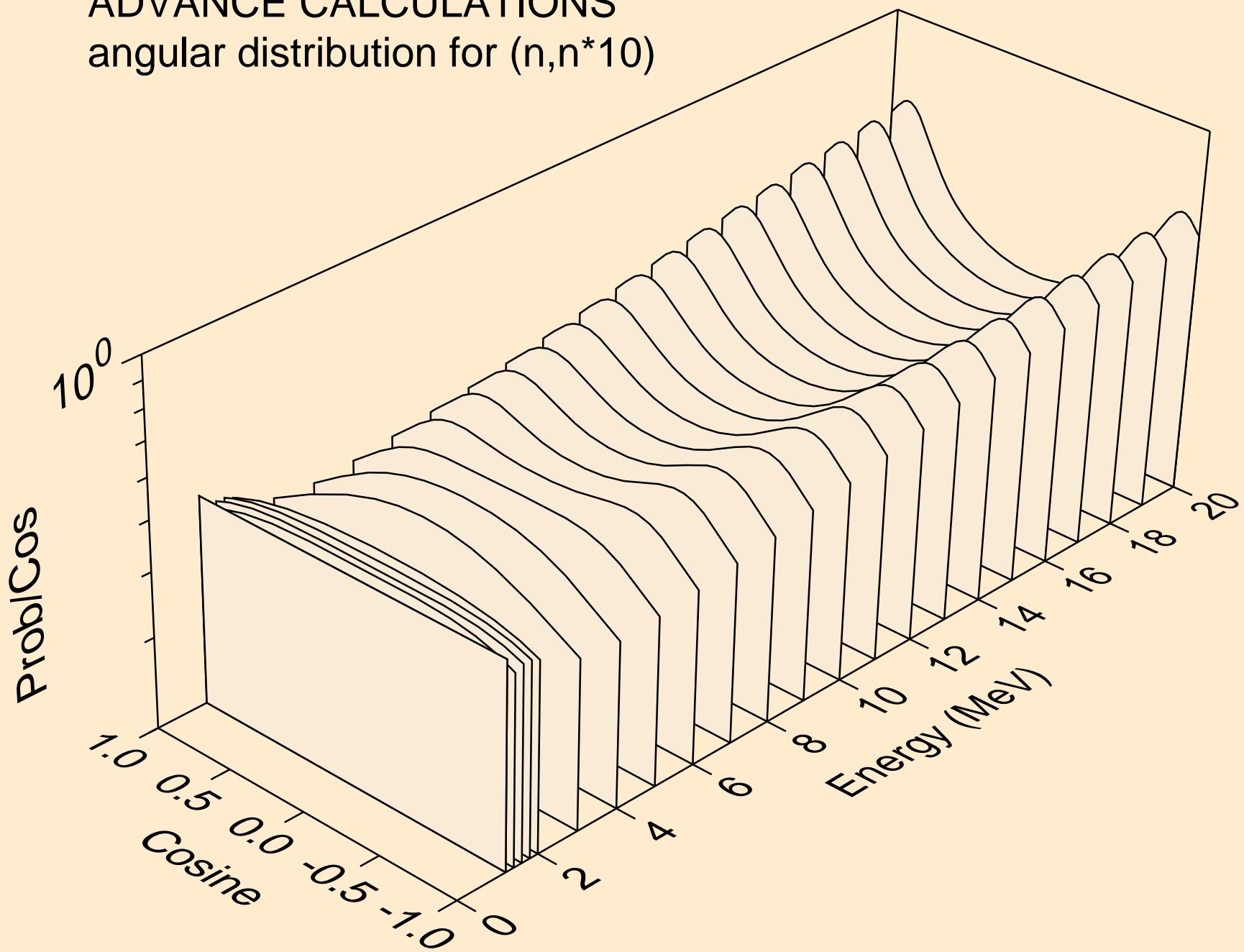
# ADVANCE CALCULATIONS

angular distribution for  $(n,n^*)$



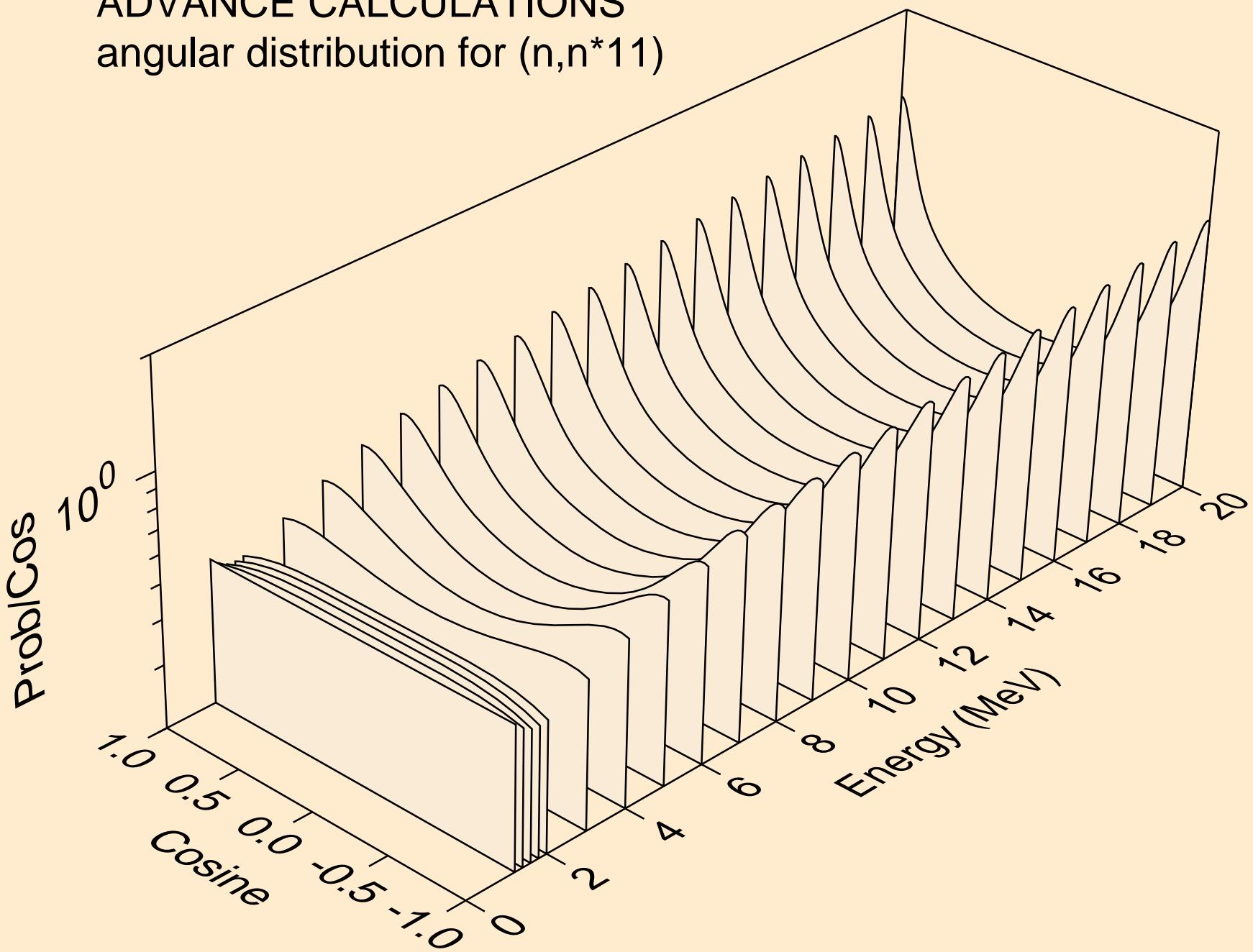
# ADVANCE CALCULATIONS

## angular distribution for (n,n\*10)



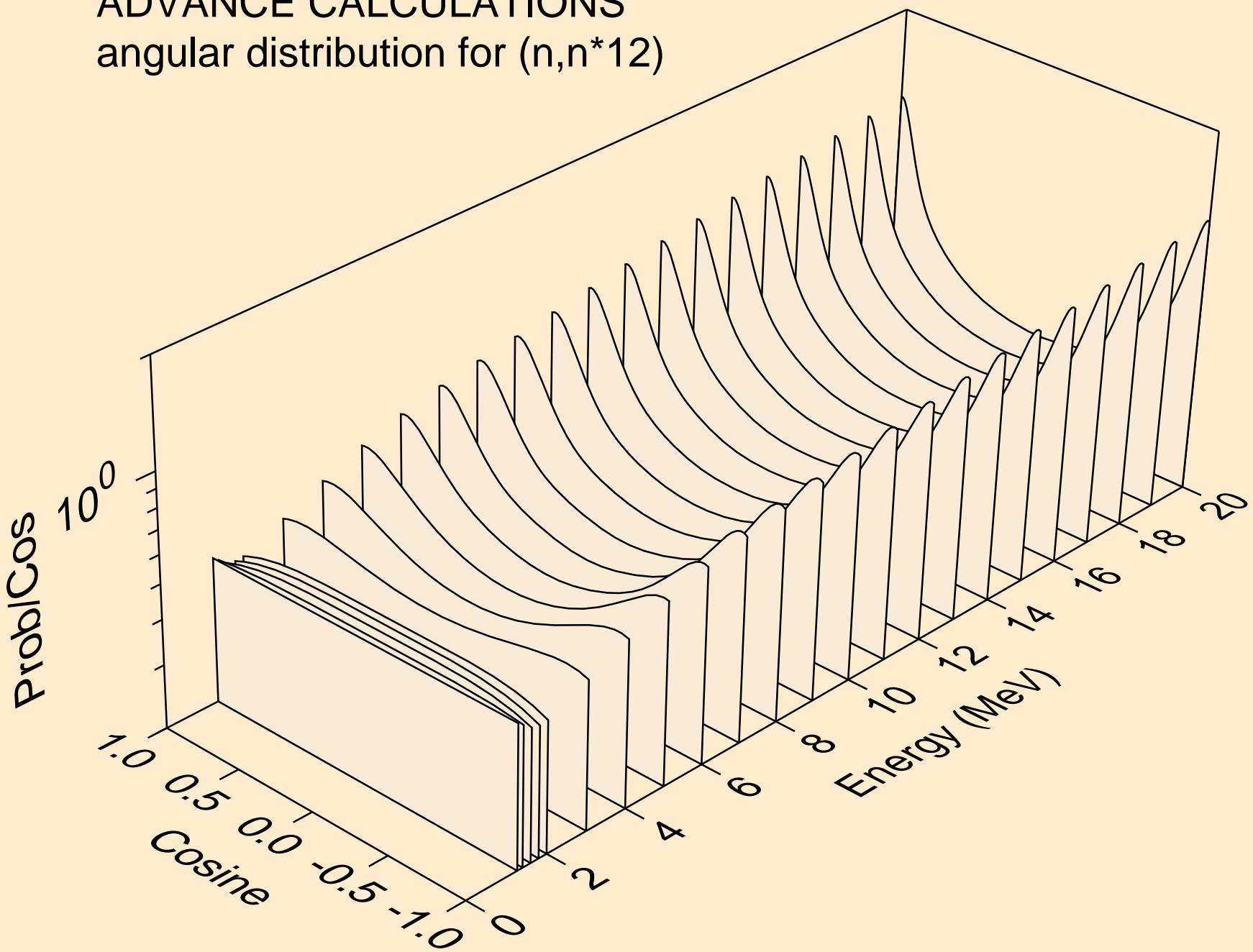
# ADVANCE CALCULATIONS

## angular distribution for (n,n\*11)



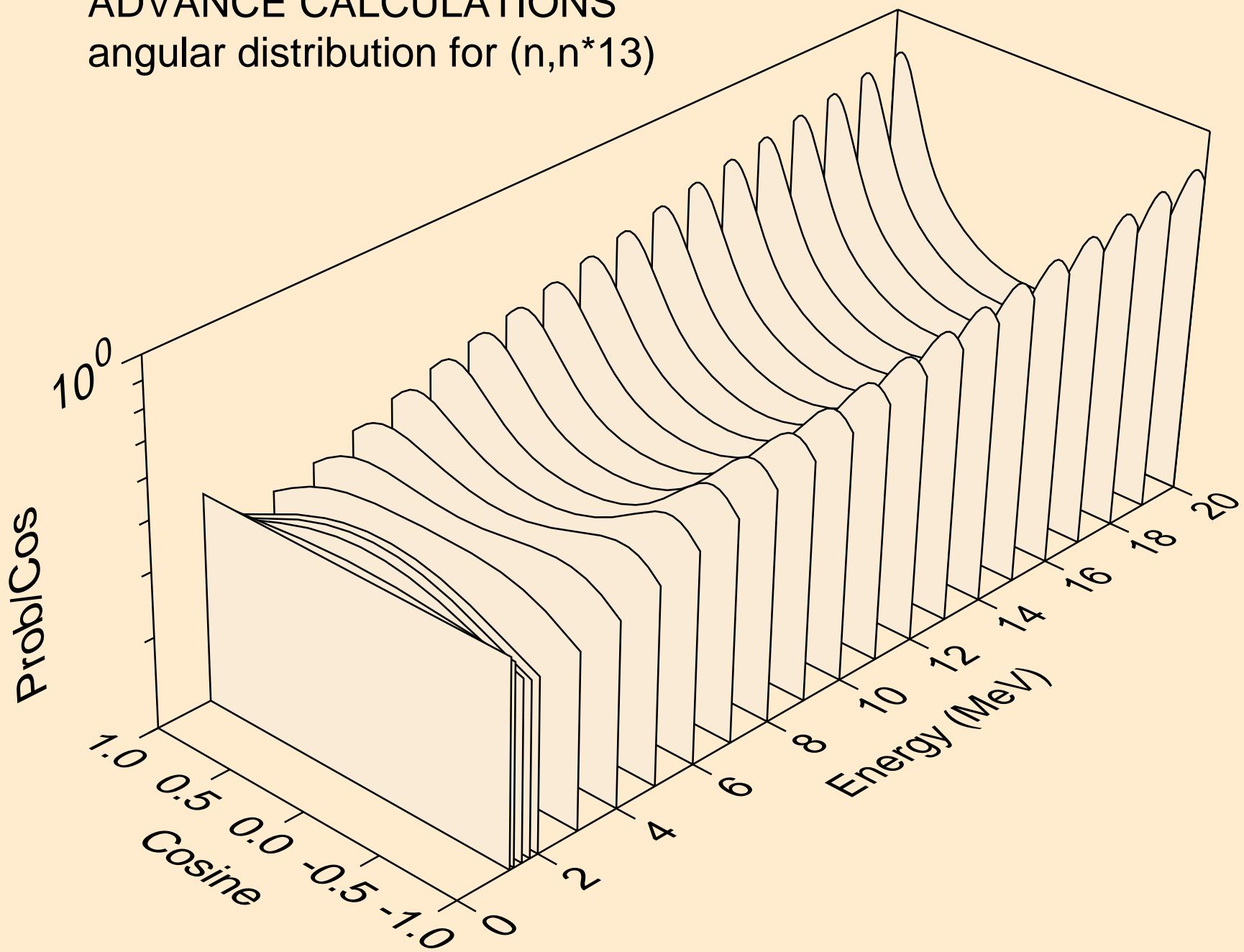
# ADVANCE CALCULATIONS

angular distribution for  $(n,n^*12)$



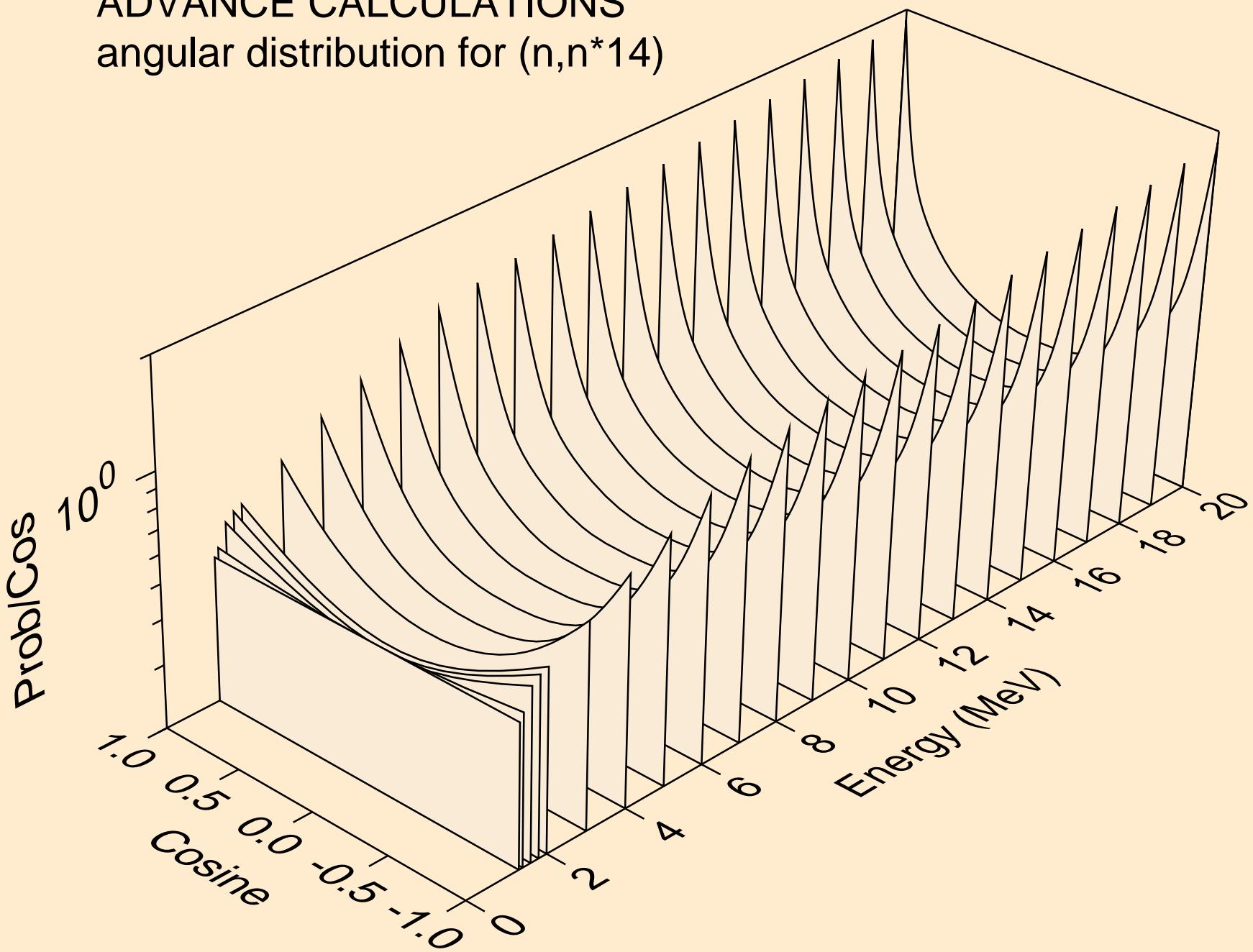
# ADVANCE CALCULATIONS

angular distribution for (n,n\*13)



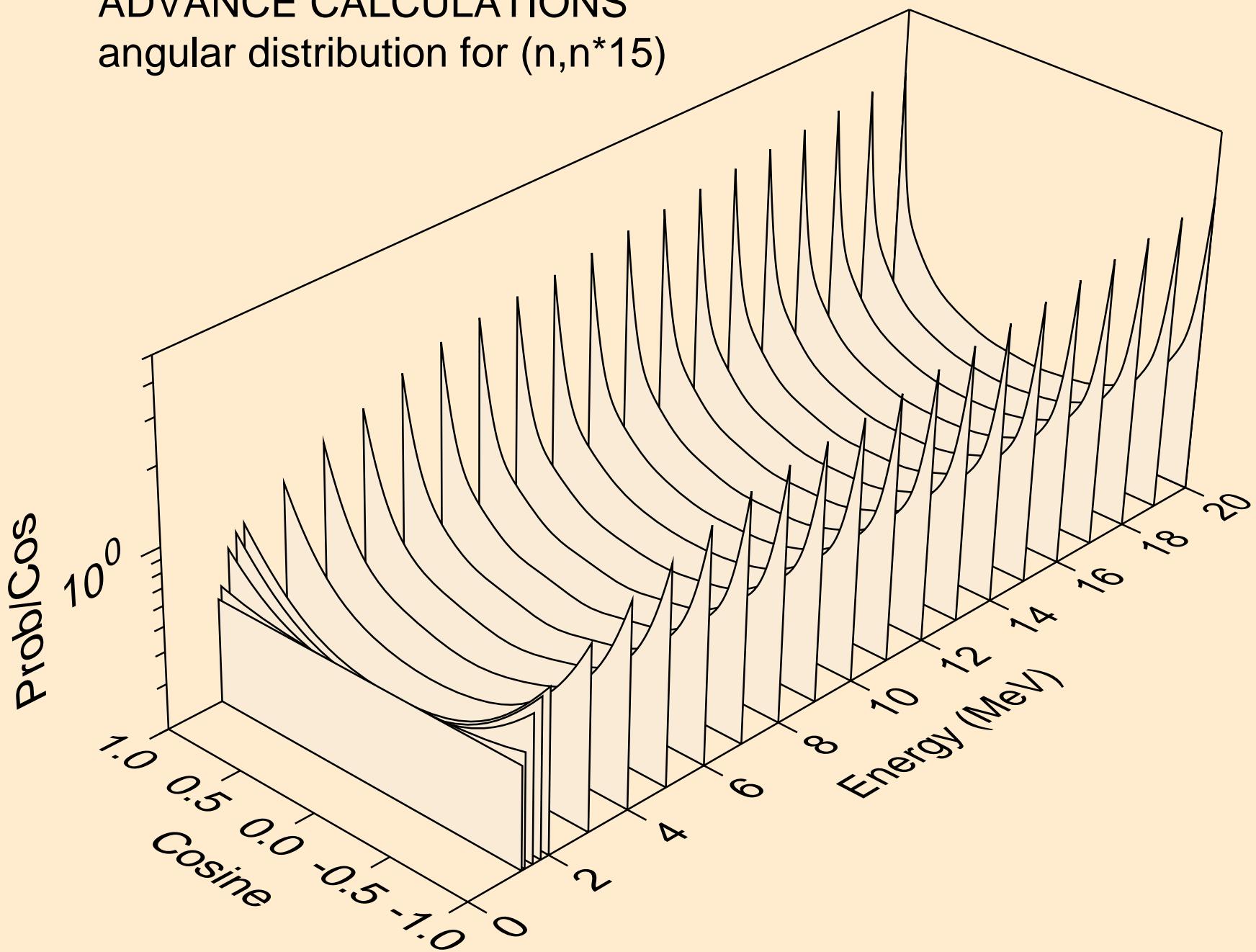
# ADVANCE CALCULATIONS

## angular distribution for (n,n\*14)



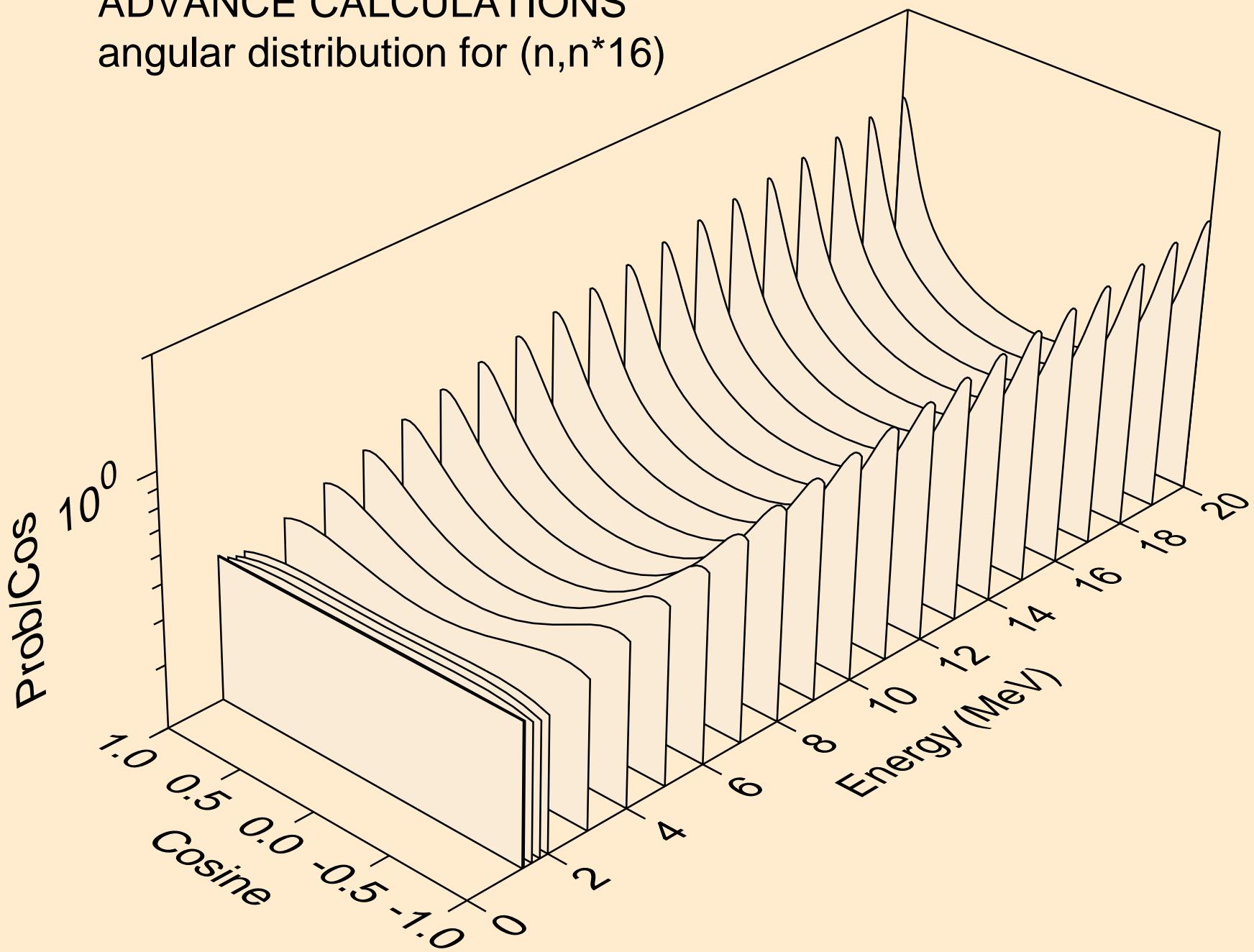
# ADVANCE CALCULATIONS

angular distribution for  $(n,n^*15)$



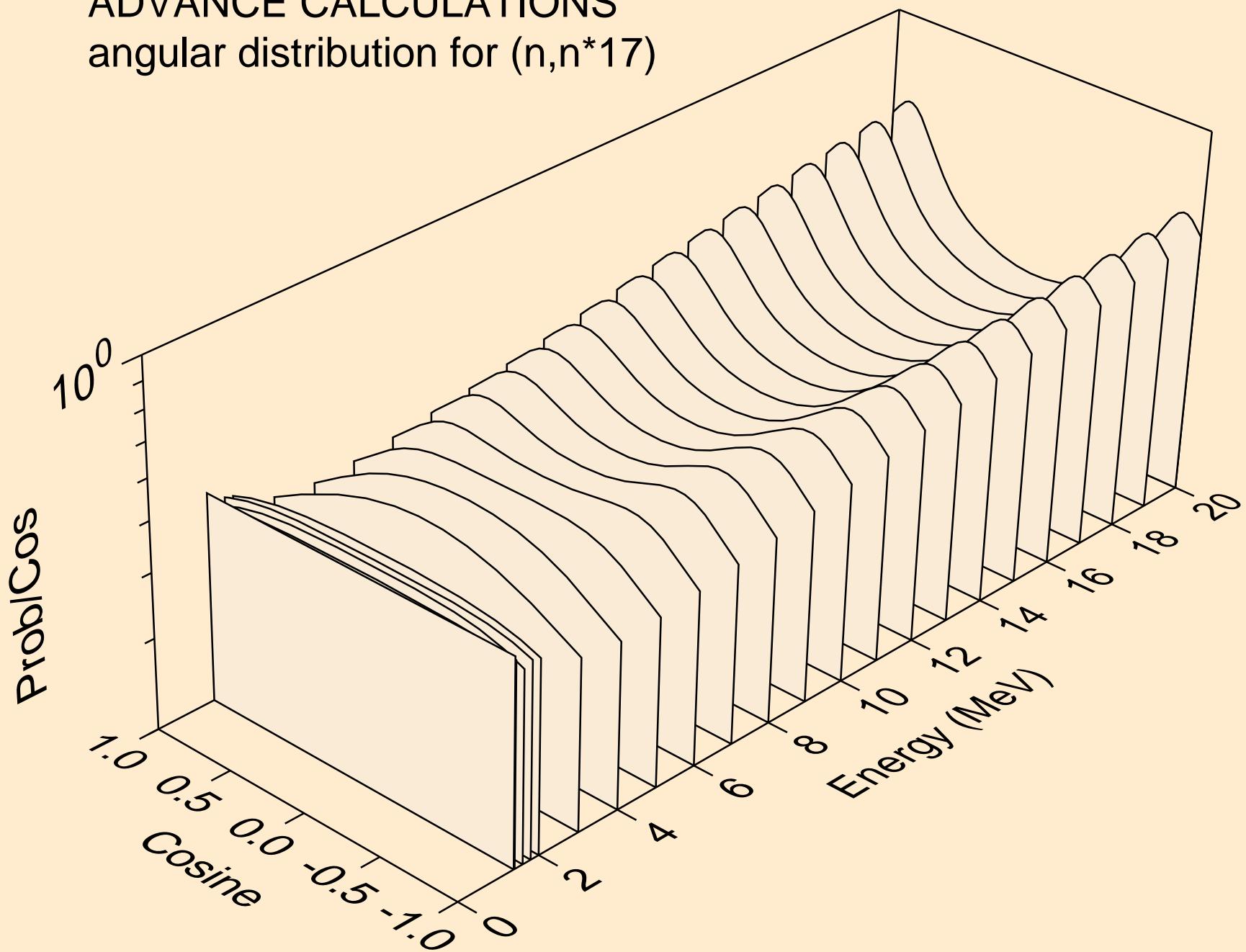
# ADVANCE CALCULATIONS

angular distribution for  $(n,n^*16)$



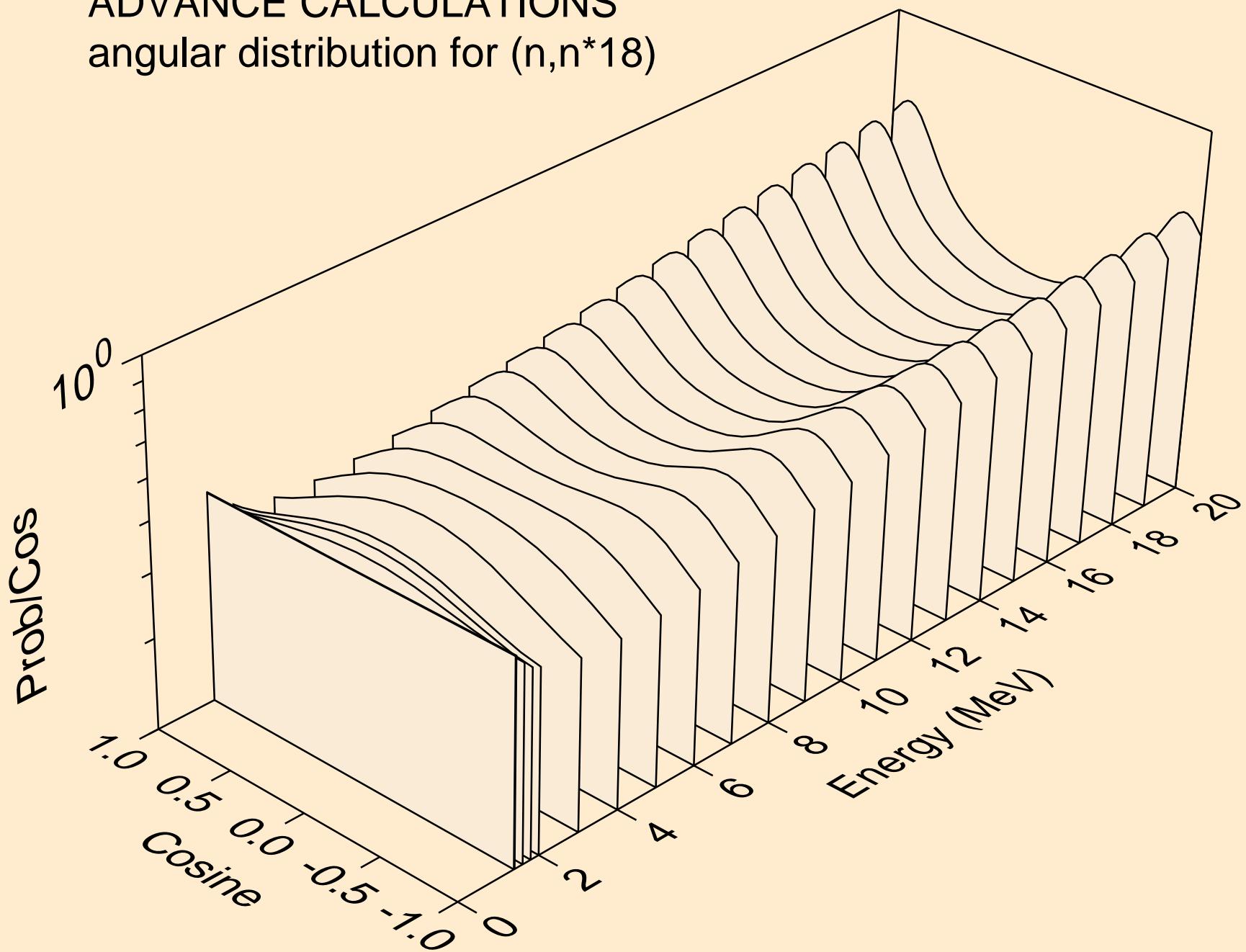
# ADVANCE CALCULATIONS

angular distribution for  $(n,n^*17)$



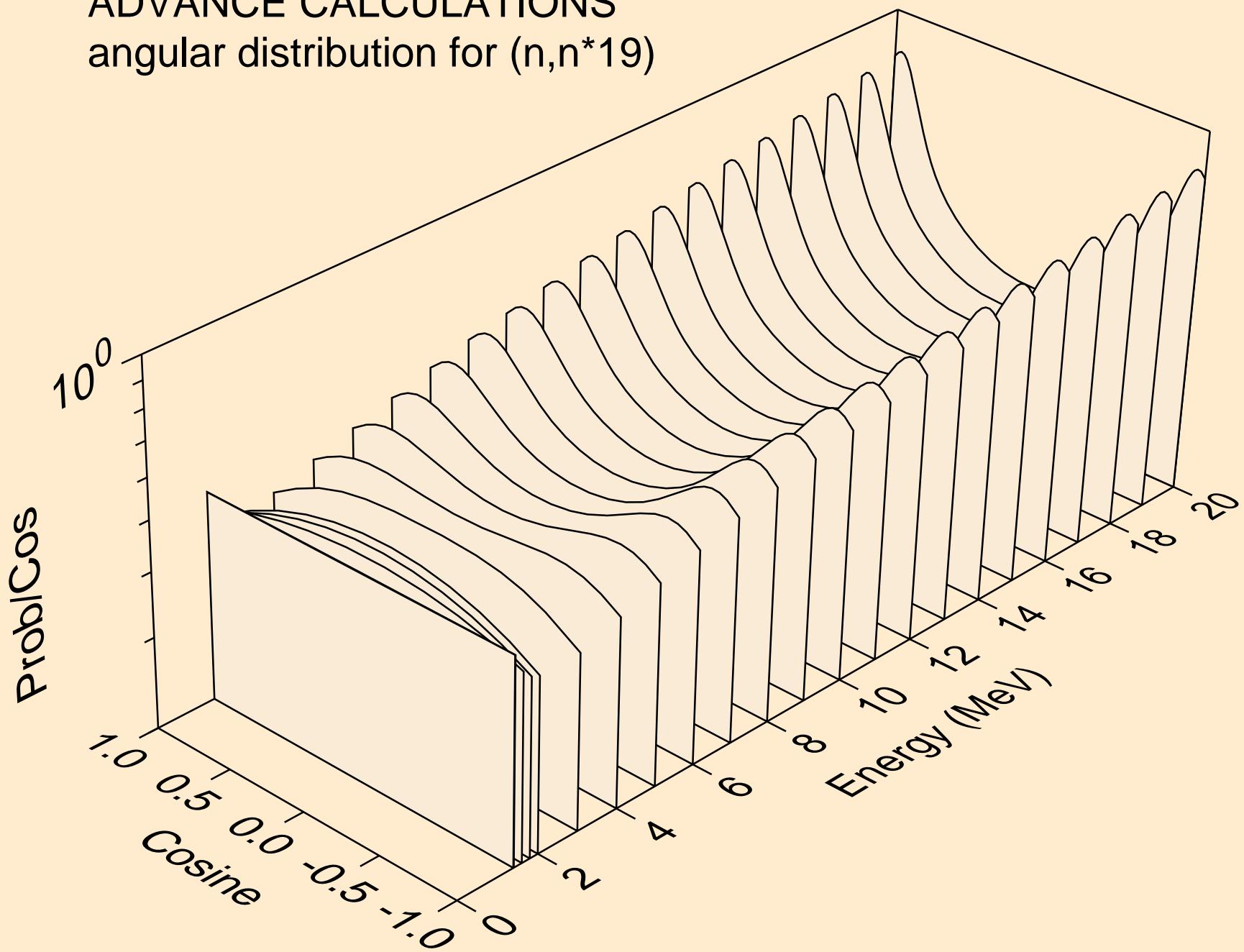
# ADVANCE CALCULATIONS

angular distribution for  $(n,n^*18)$



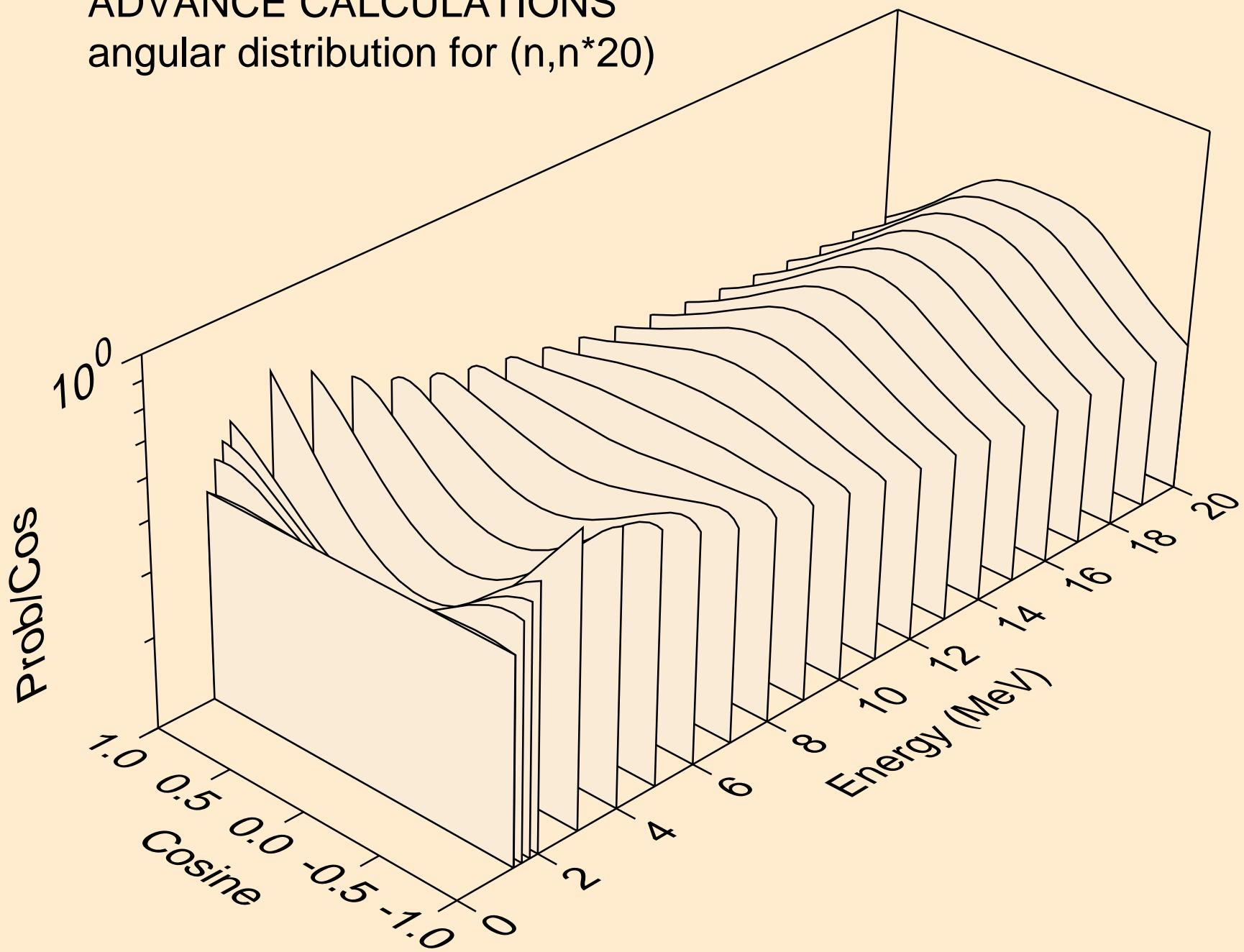
# ADVANCE CALCULATIONS

angular distribution for (n,n\*19)



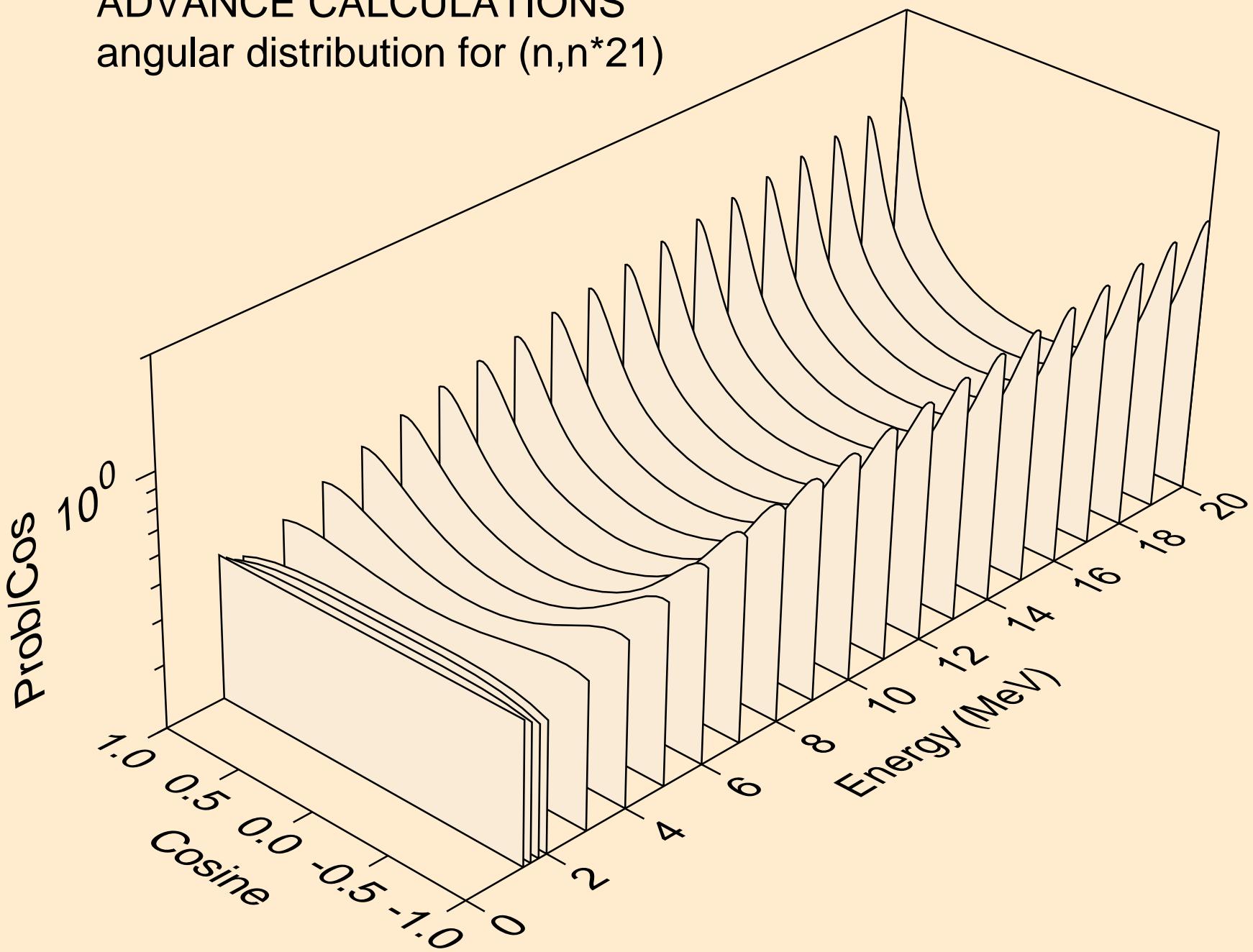
# ADVANCE CALCULATIONS

## angular distribution for (n,n\*20)



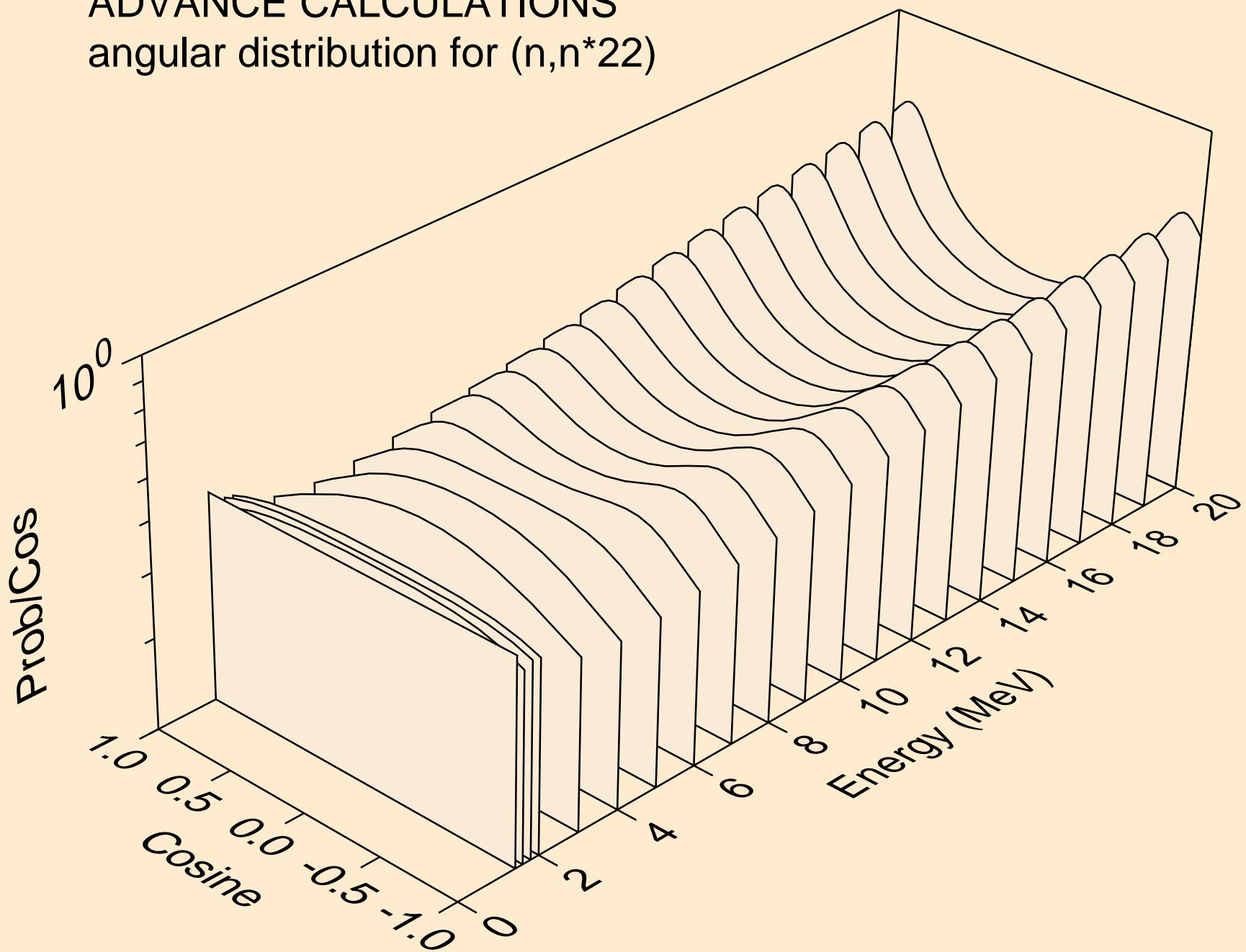
# ADVANCE CALCULATIONS

angular distribution for  $(n,n^*21)$



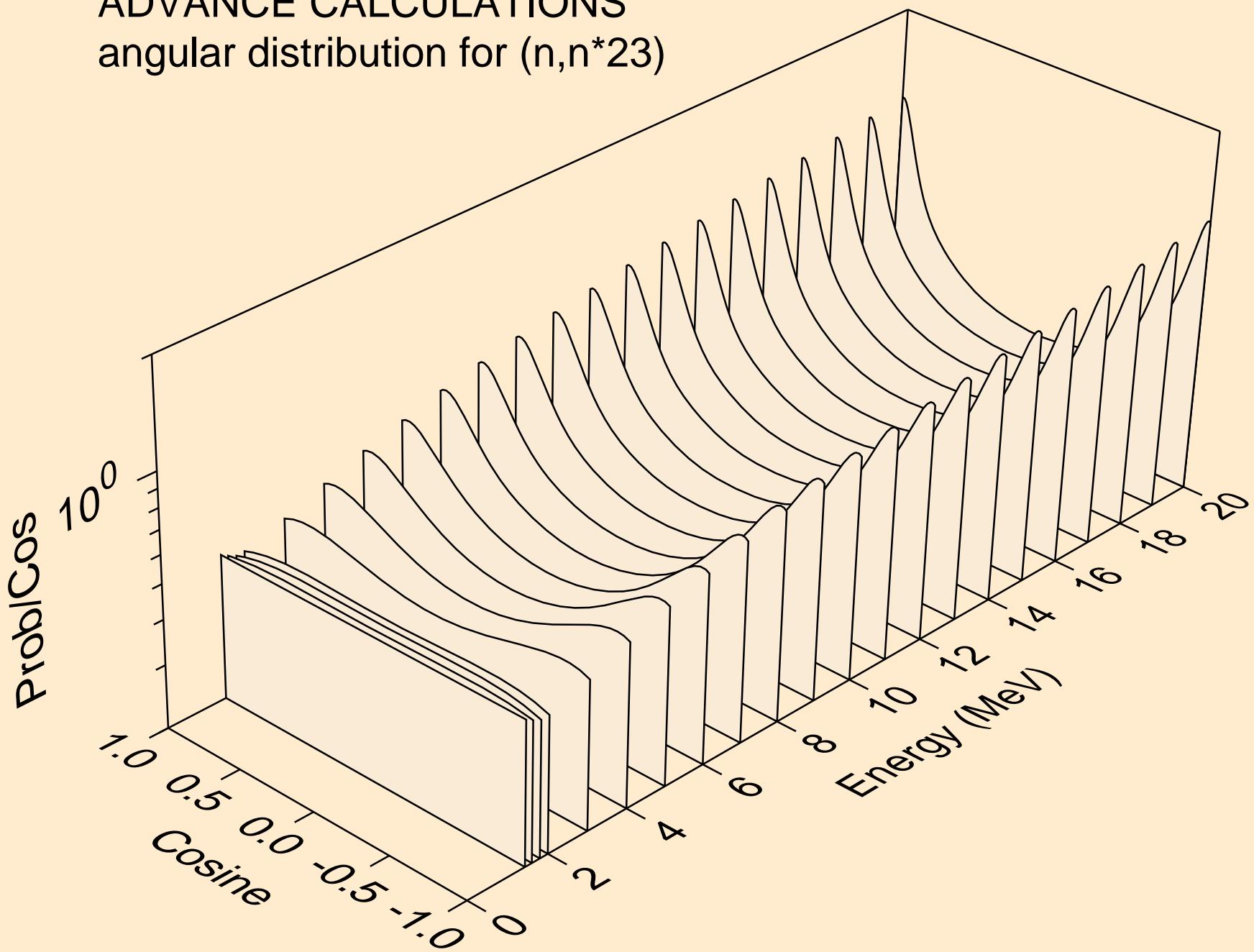
# ADVANCE CALCULATIONS

angular distribution for  $(n,n^*22)$



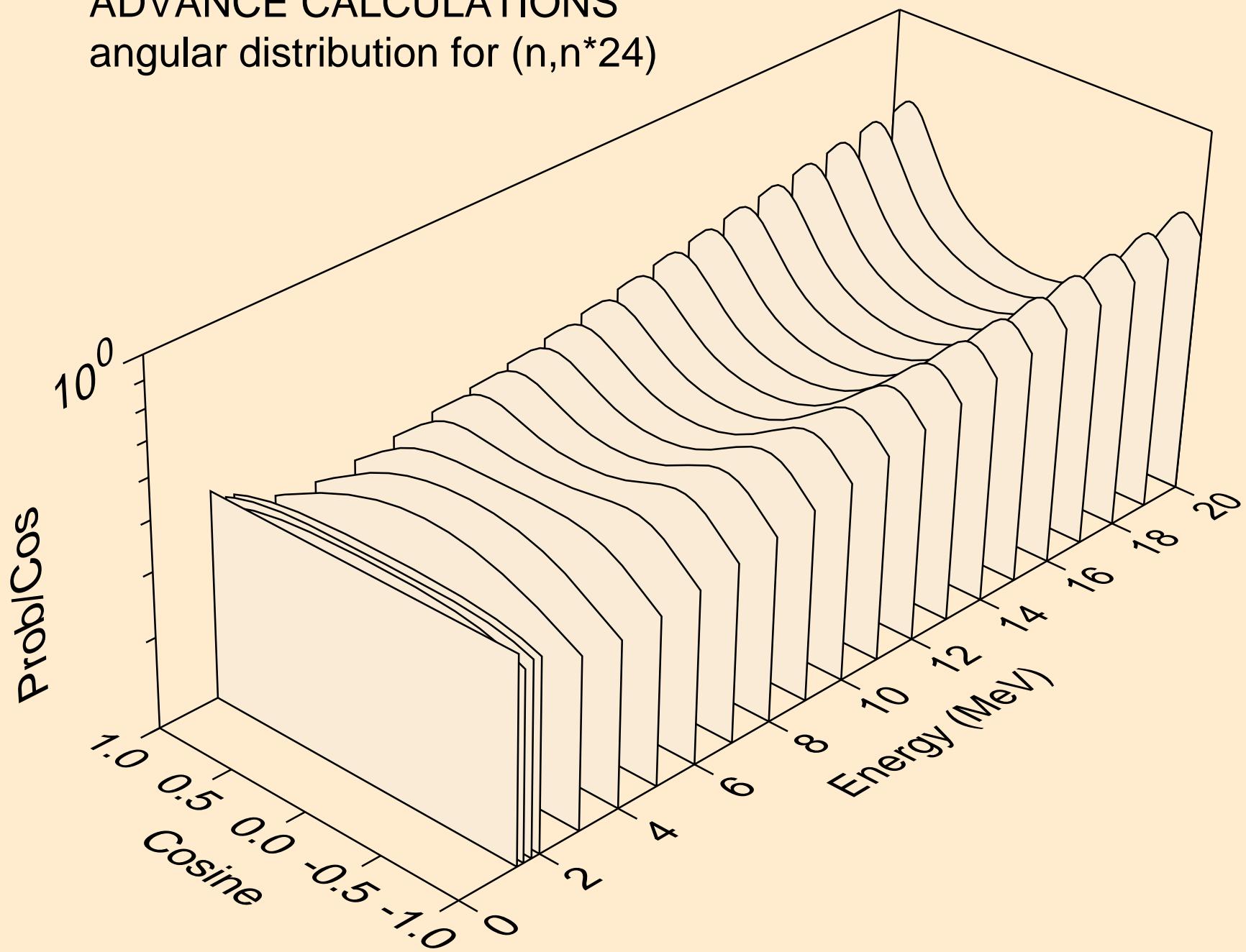
# ADVANCE CALCULATIONS

angular distribution for  $(n,n^*23)$



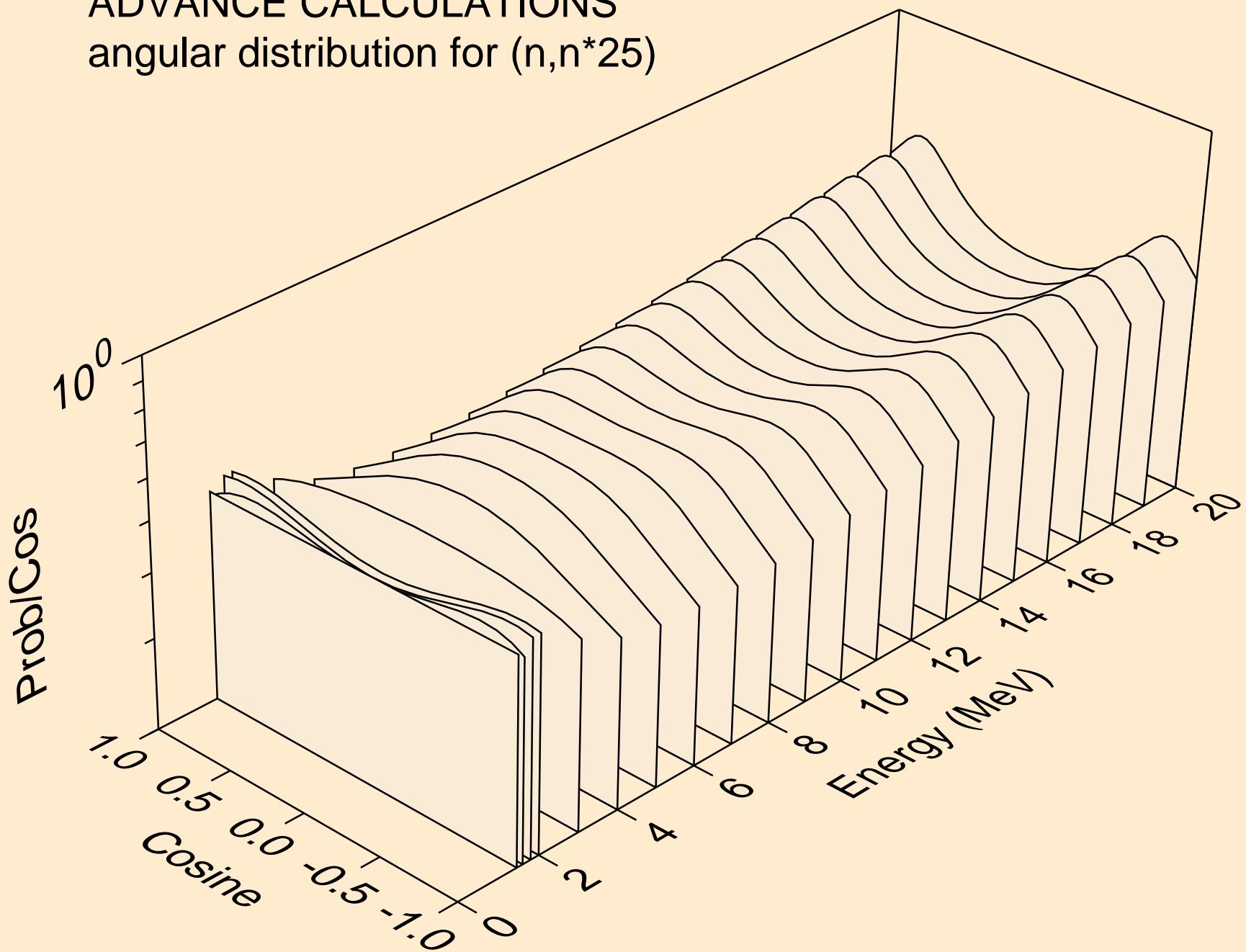
# ADVANCE CALCULATIONS

angular distribution for  $(n,n^*24)$



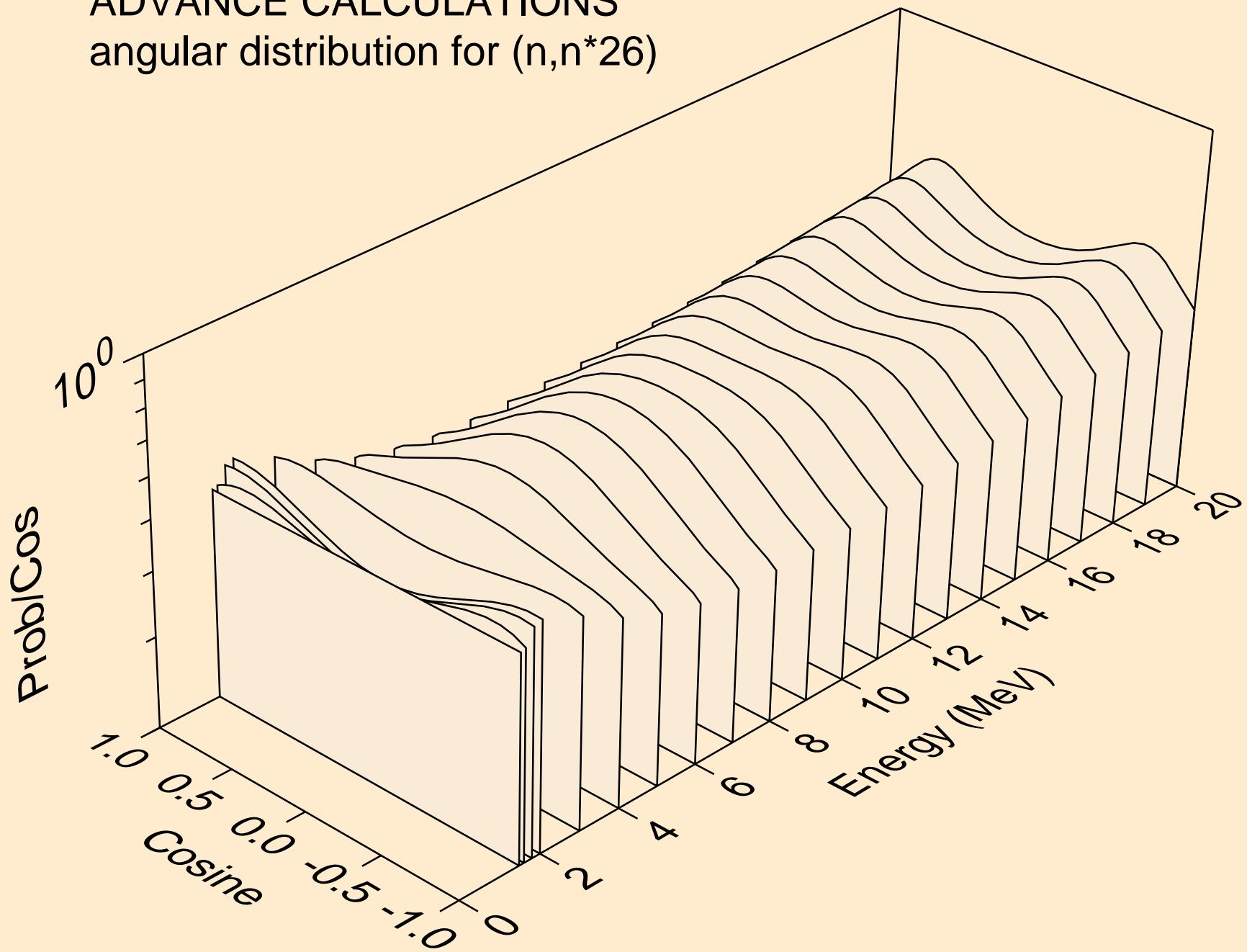
# ADVANCE CALCULATIONS

angular distribution for  $(n,n^*25)$



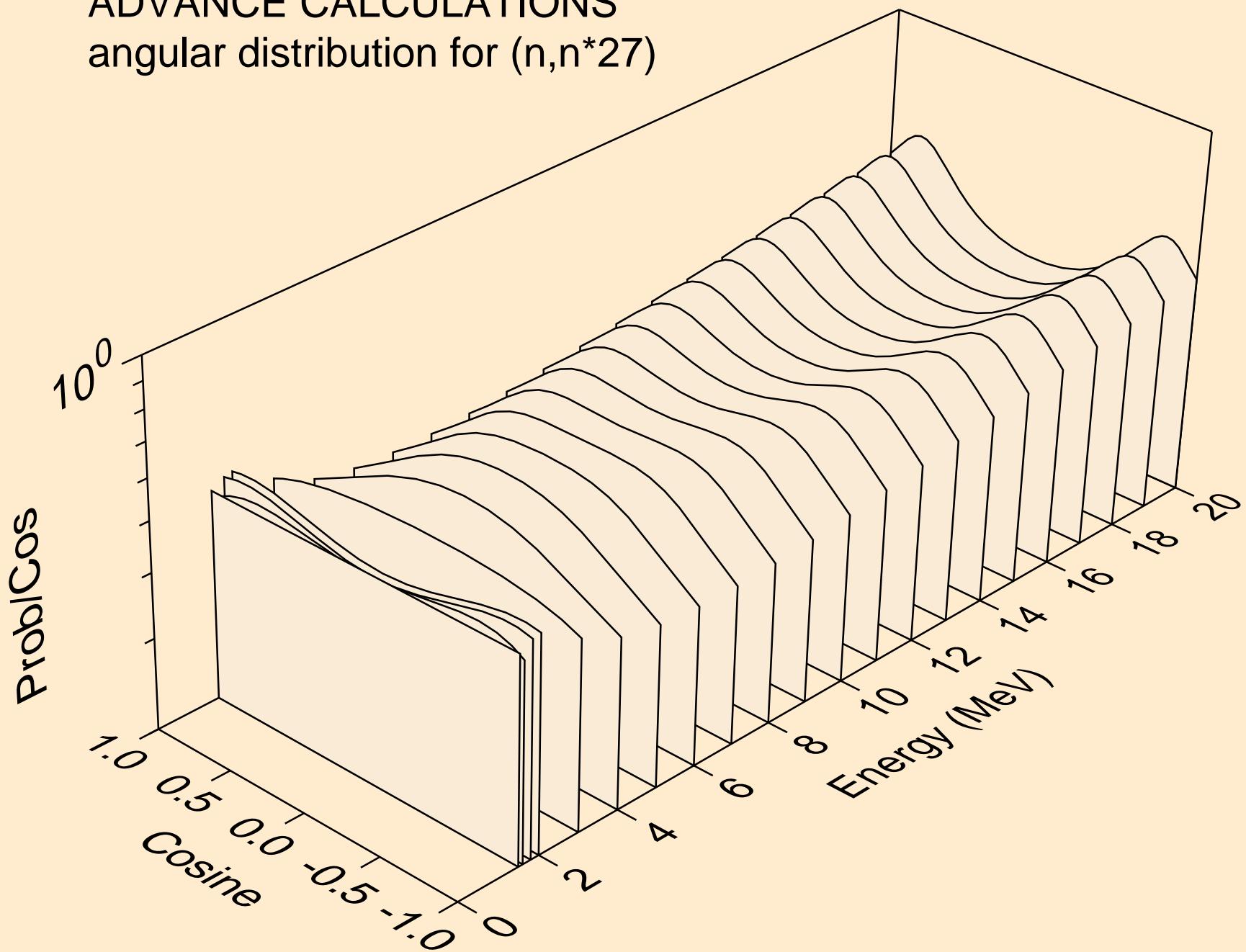
# ADVANCE CALCULATIONS

angular distribution for  $(n,n^*26)$



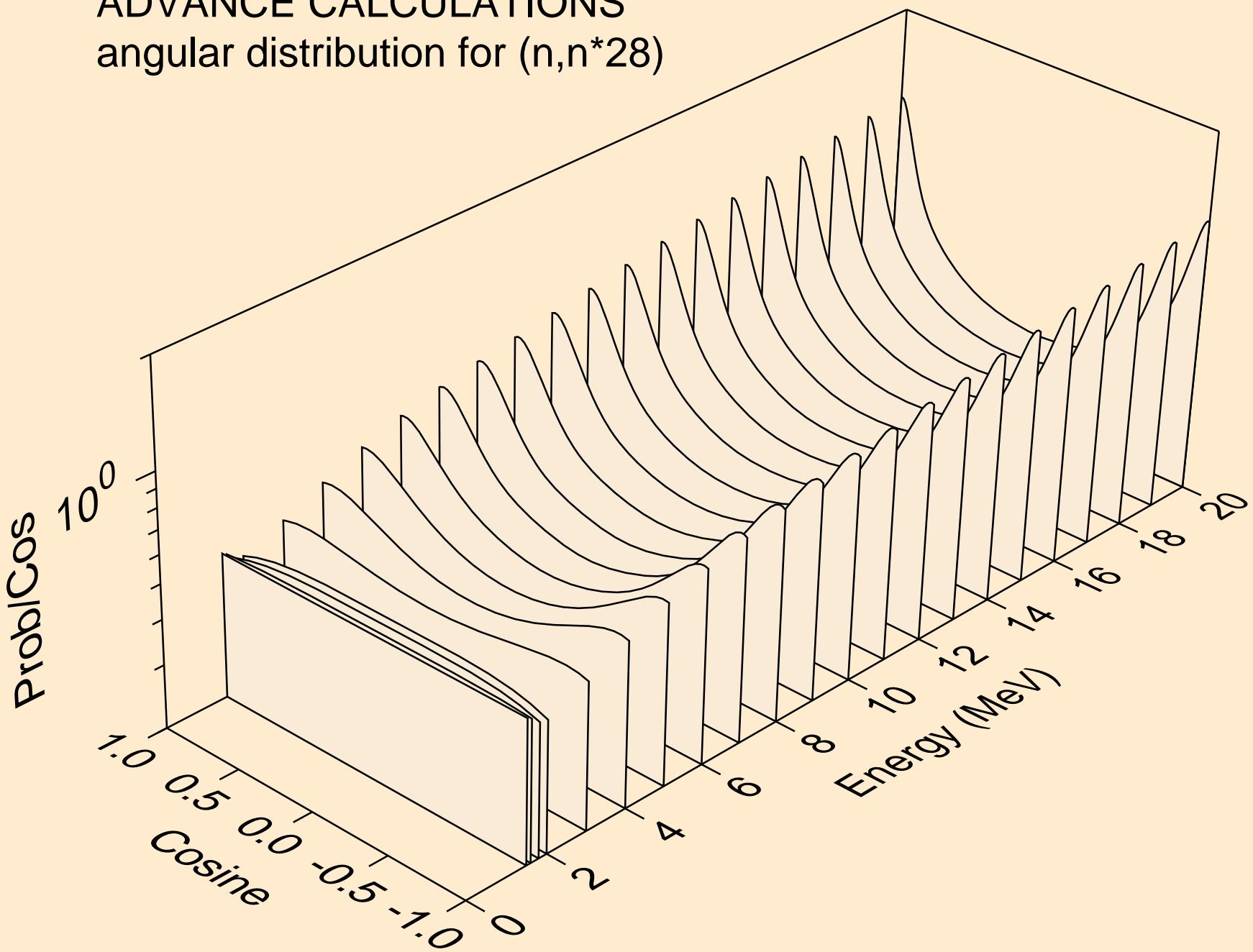
# ADVANCE CALCULATIONS

## angular distribution for ( $n, n^* 27$ )



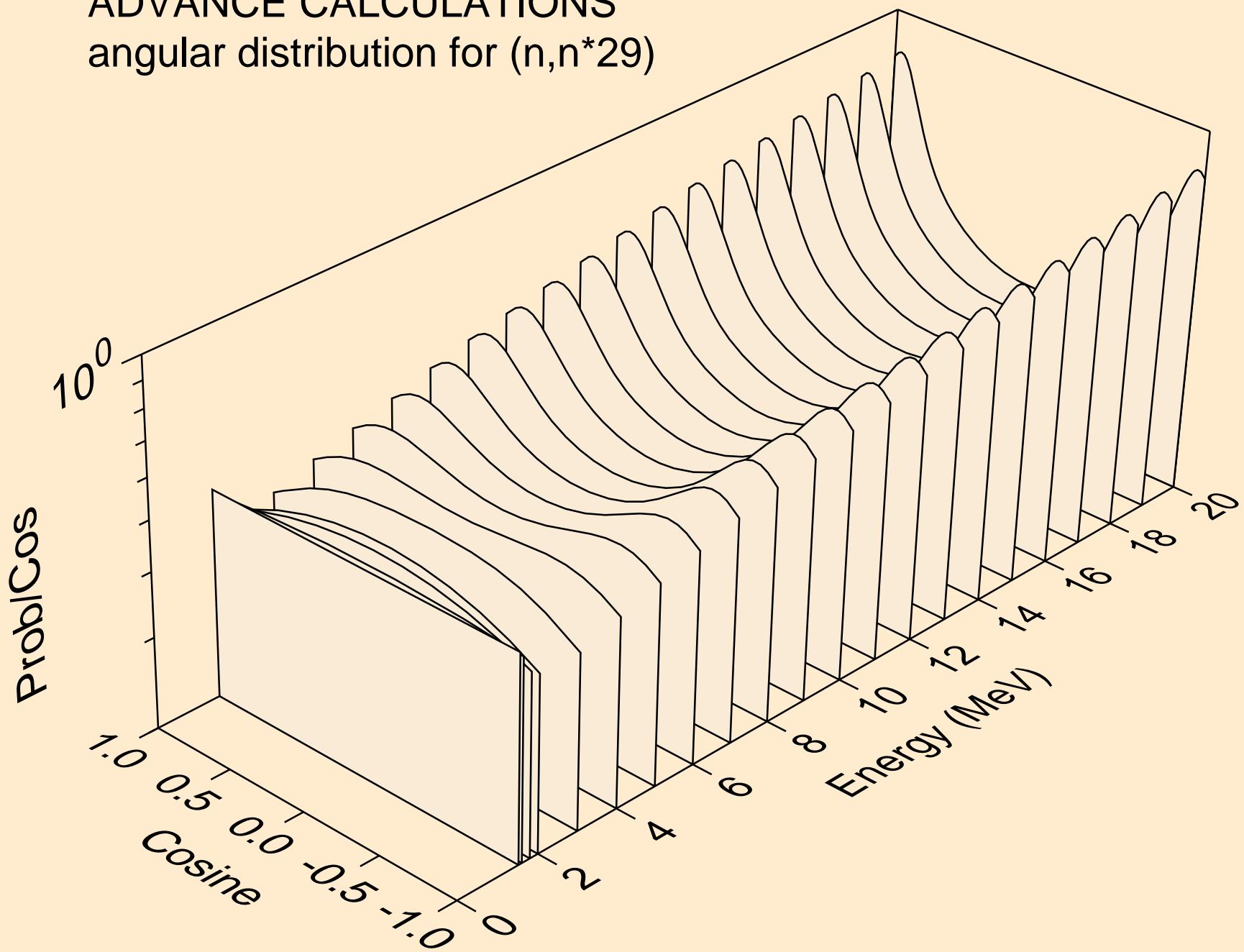
# ADVANCE CALCULATIONS

angular distribution for  $(n,n^*28)$



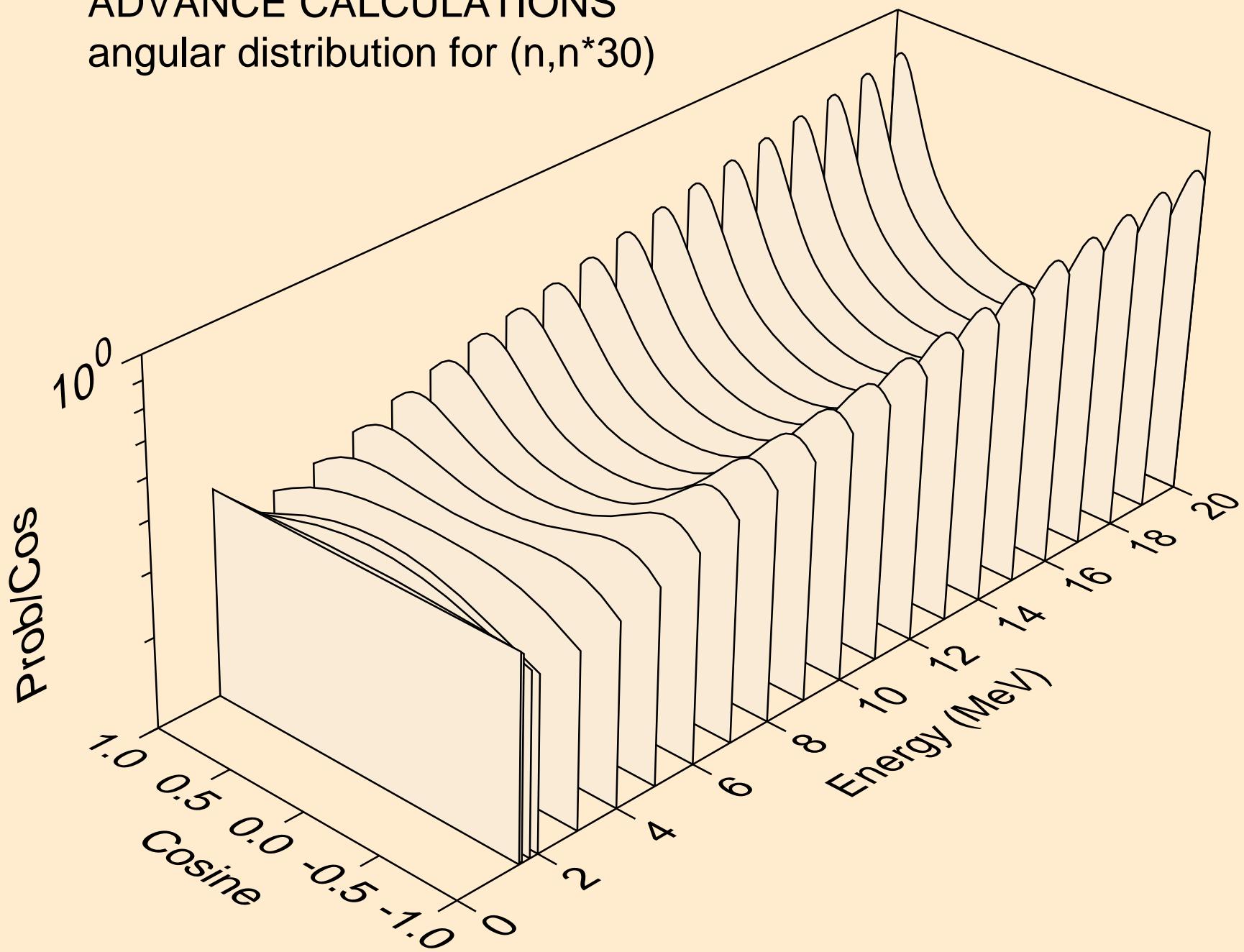
# ADVANCE CALCULATIONS

angular distribution for  $(n,n^*29)$



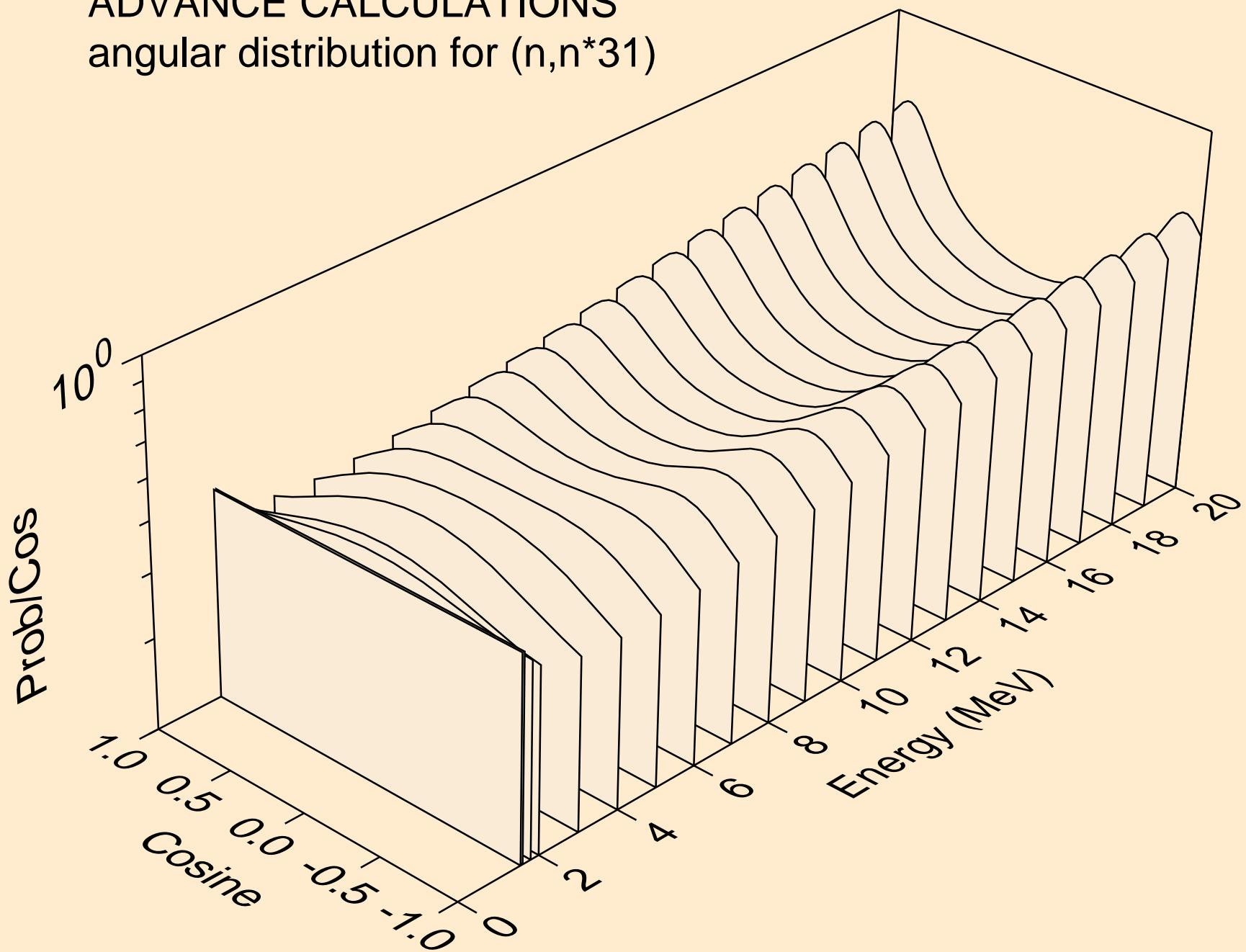
# ADVANCE CALCULATIONS

angular distribution for  $(n,n^*)30$



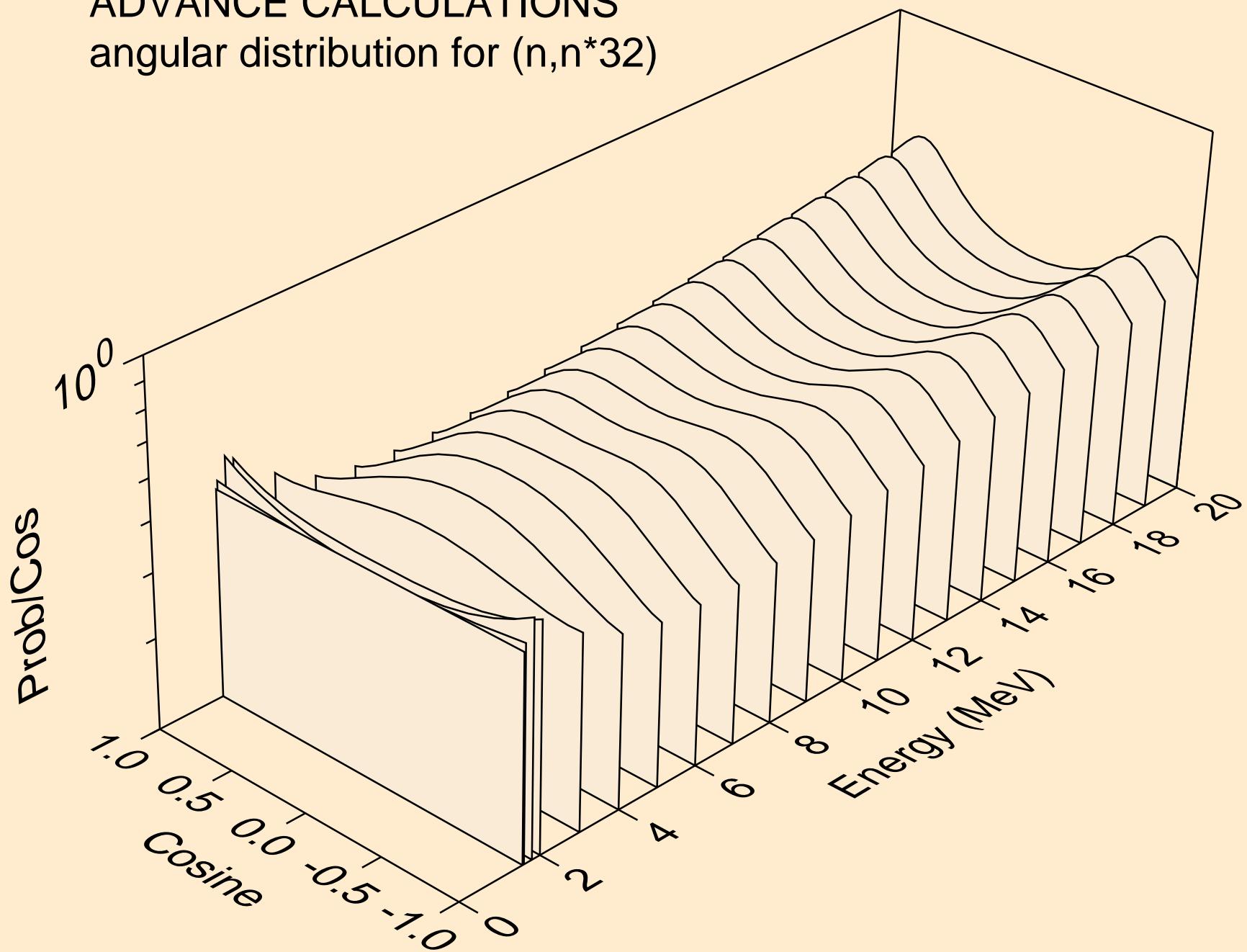
# ADVANCE CALCULATIONS

angular distribution for (n,n\*31)



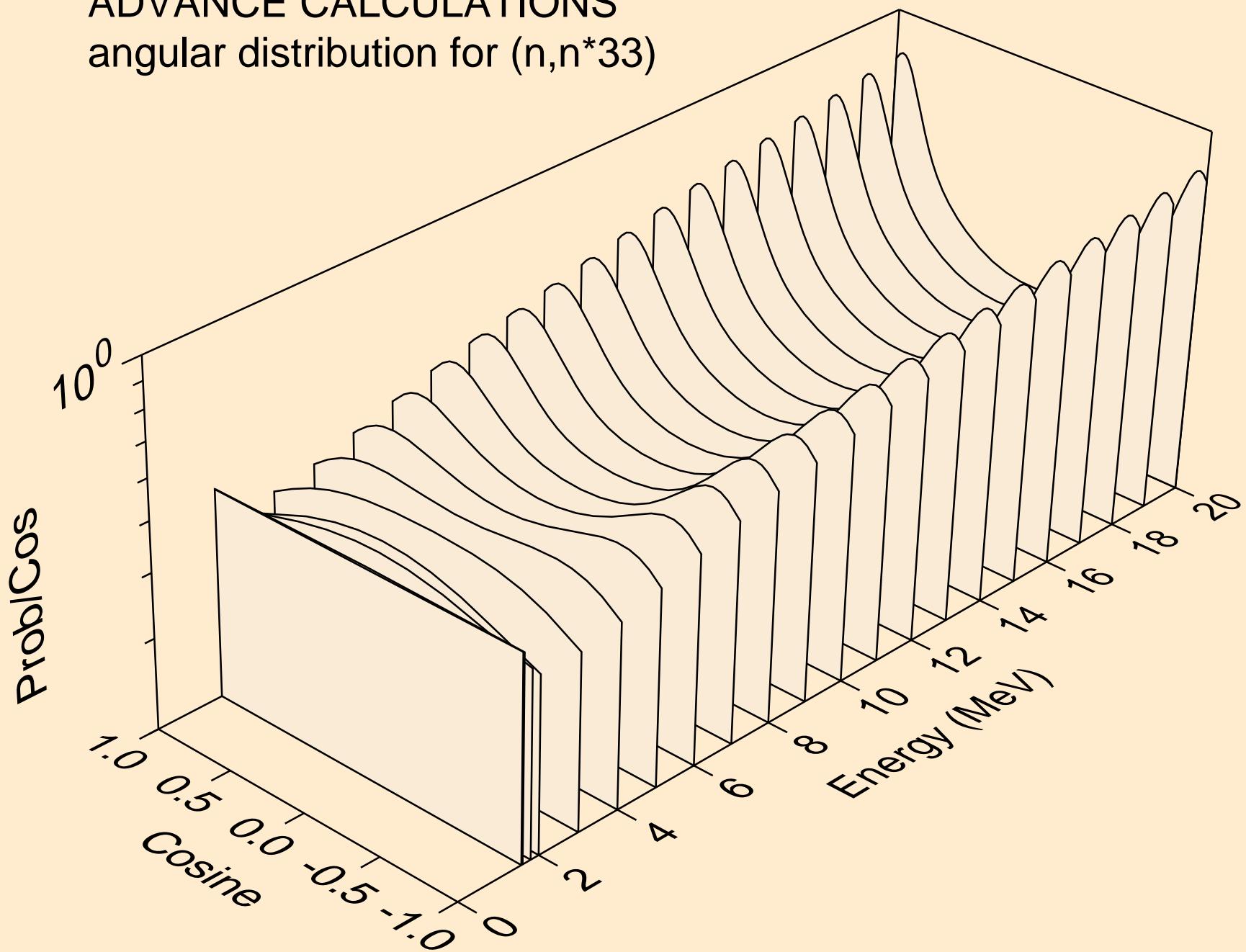
# ADVANCE CALCULATIONS

angular distribution for  $(n,n^*32)$



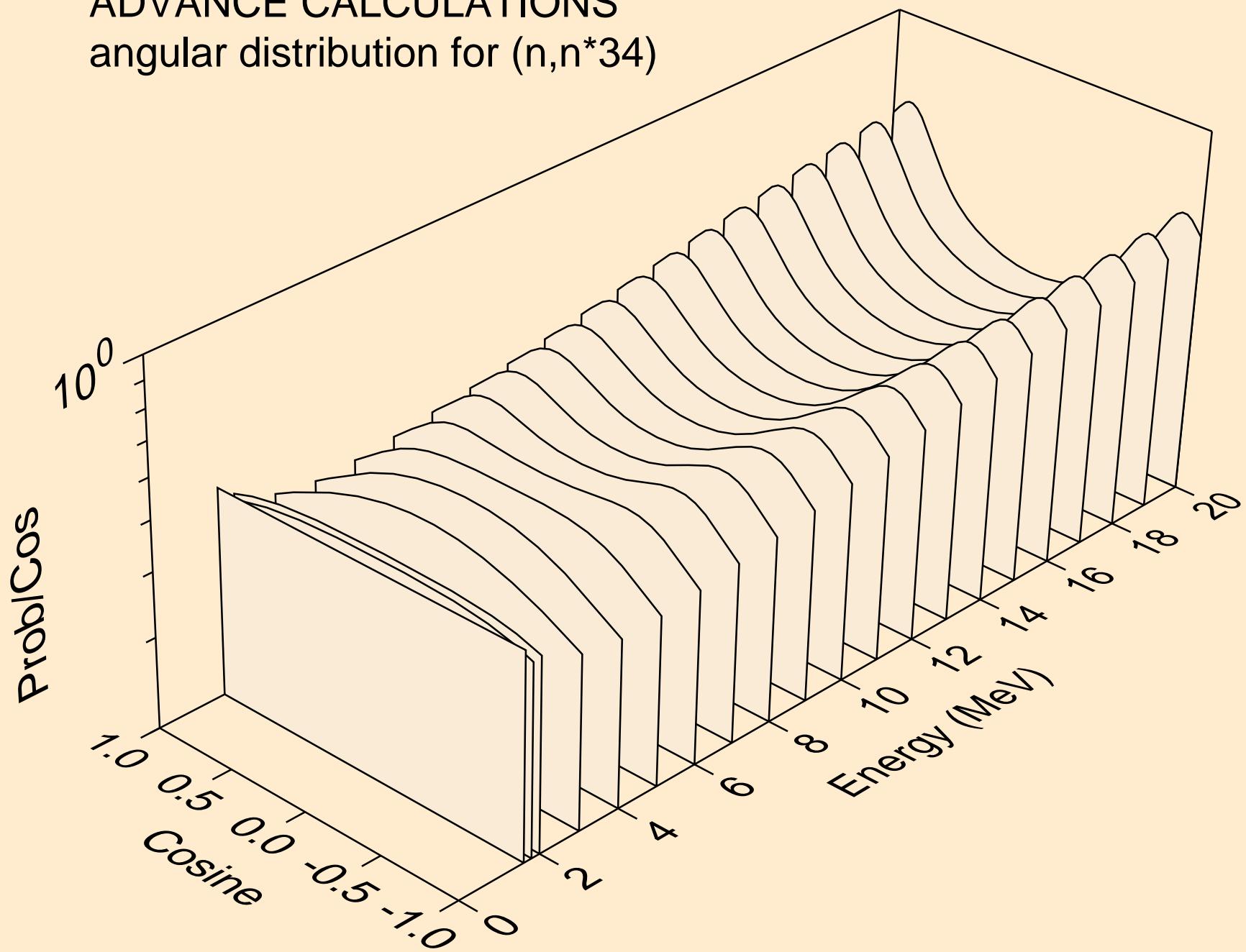
# ADVANCE CALCULATIONS

angular distribution for  $(n,n^*33)$



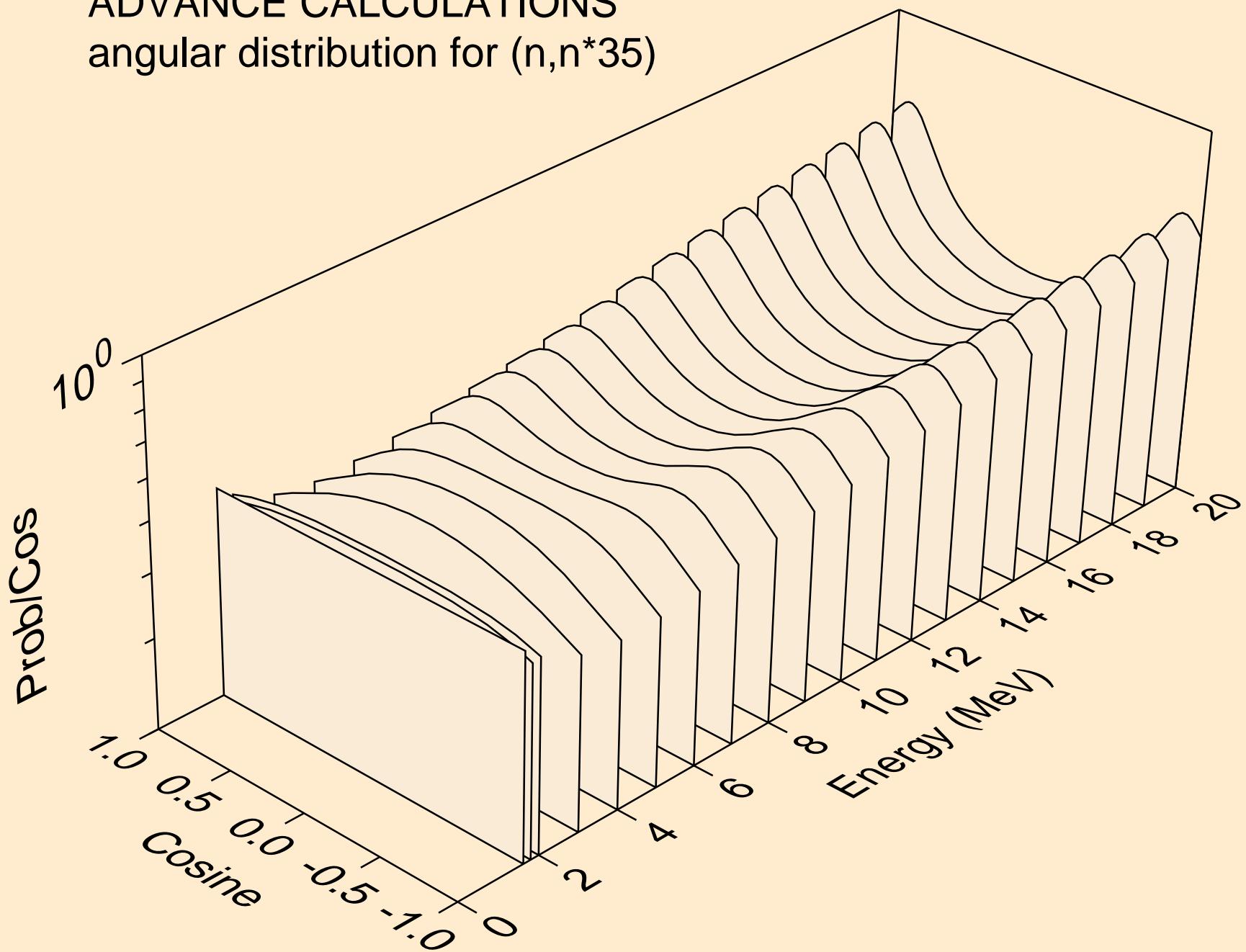
# ADVANCE CALCULATIONS

angular distribution for  $(n,n^*34)$



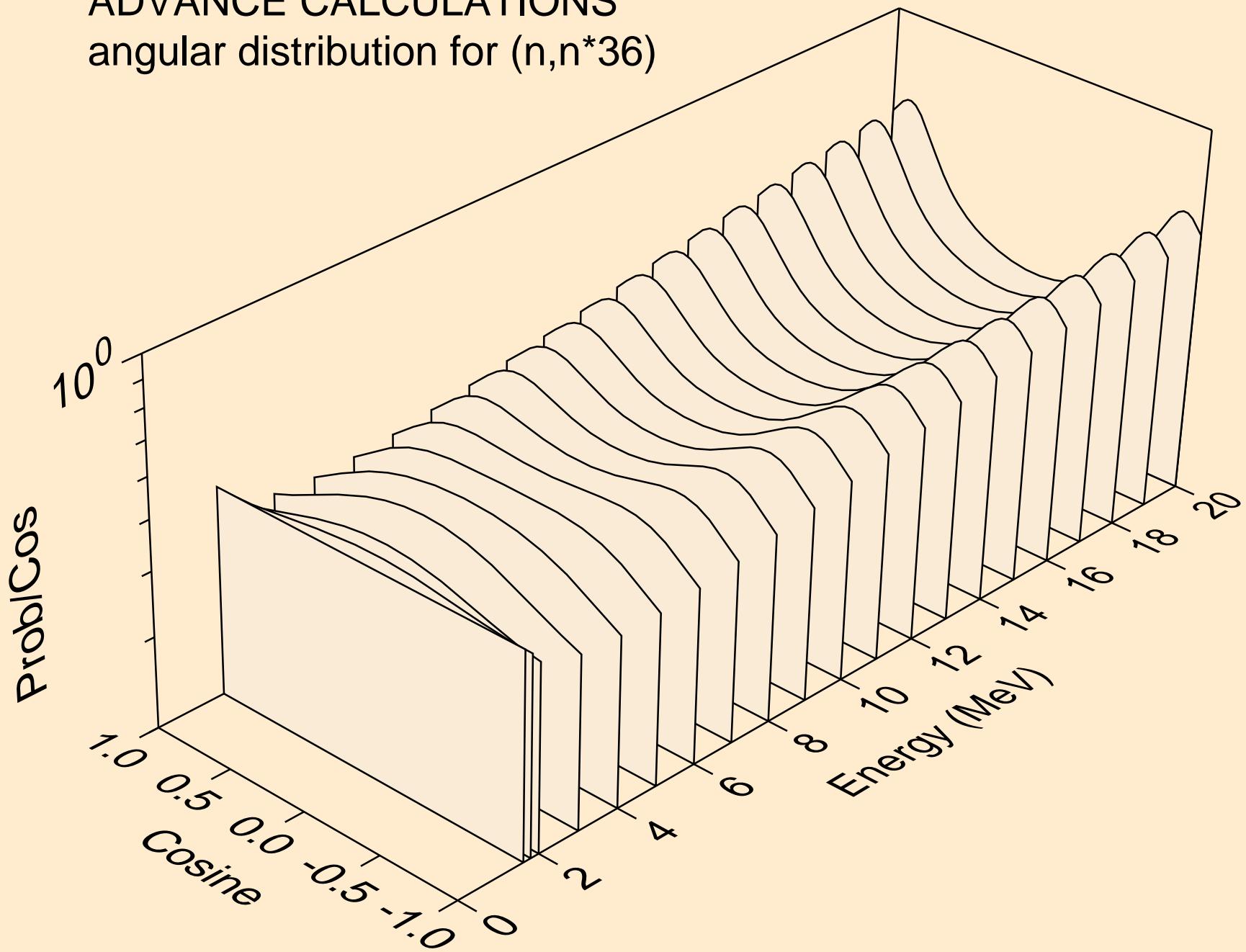
# ADVANCE CALCULATIONS

angular distribution for  $(n,n^*35)$



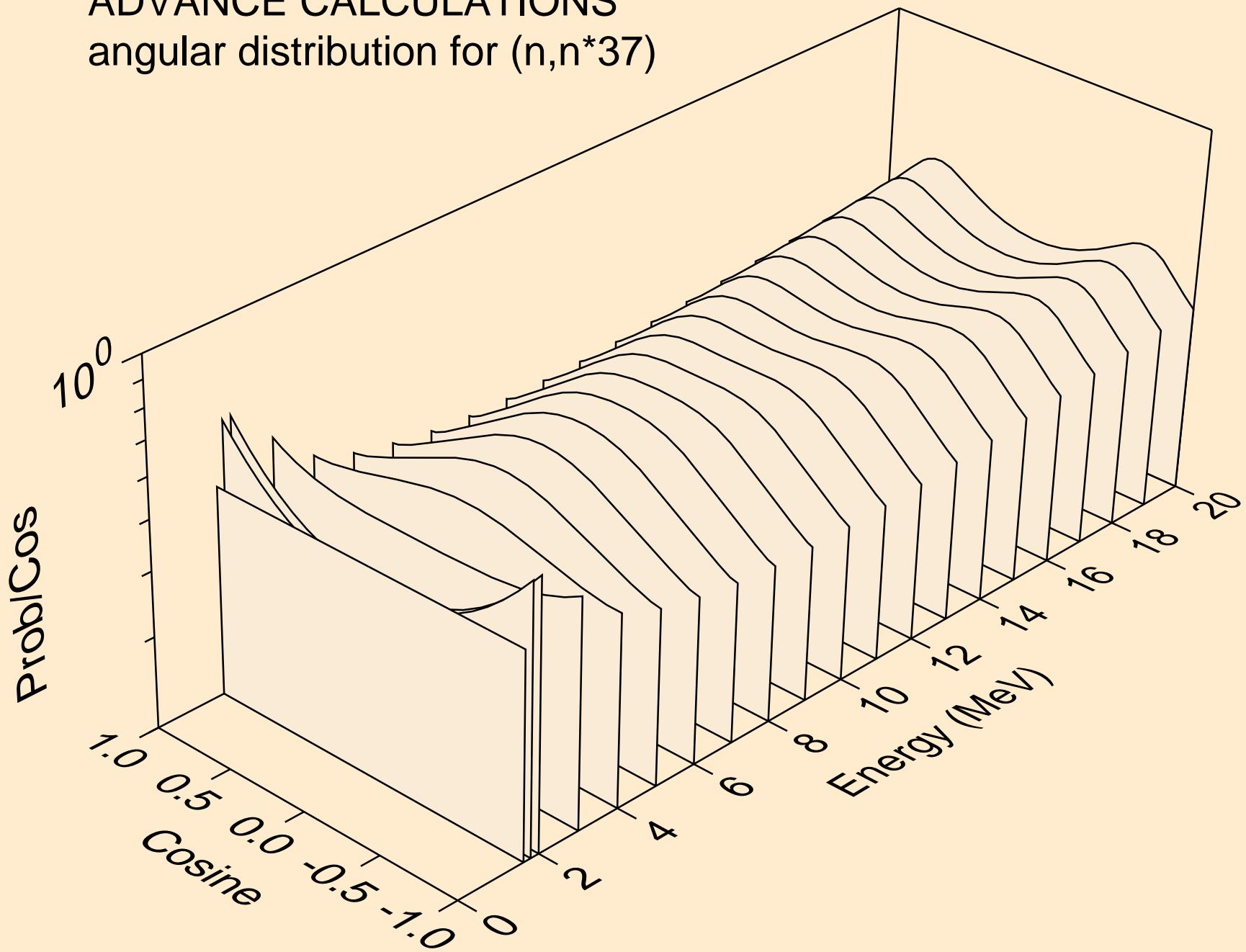
# ADVANCE CALCULATIONS

angular distribution for  $(n,n^*36)$



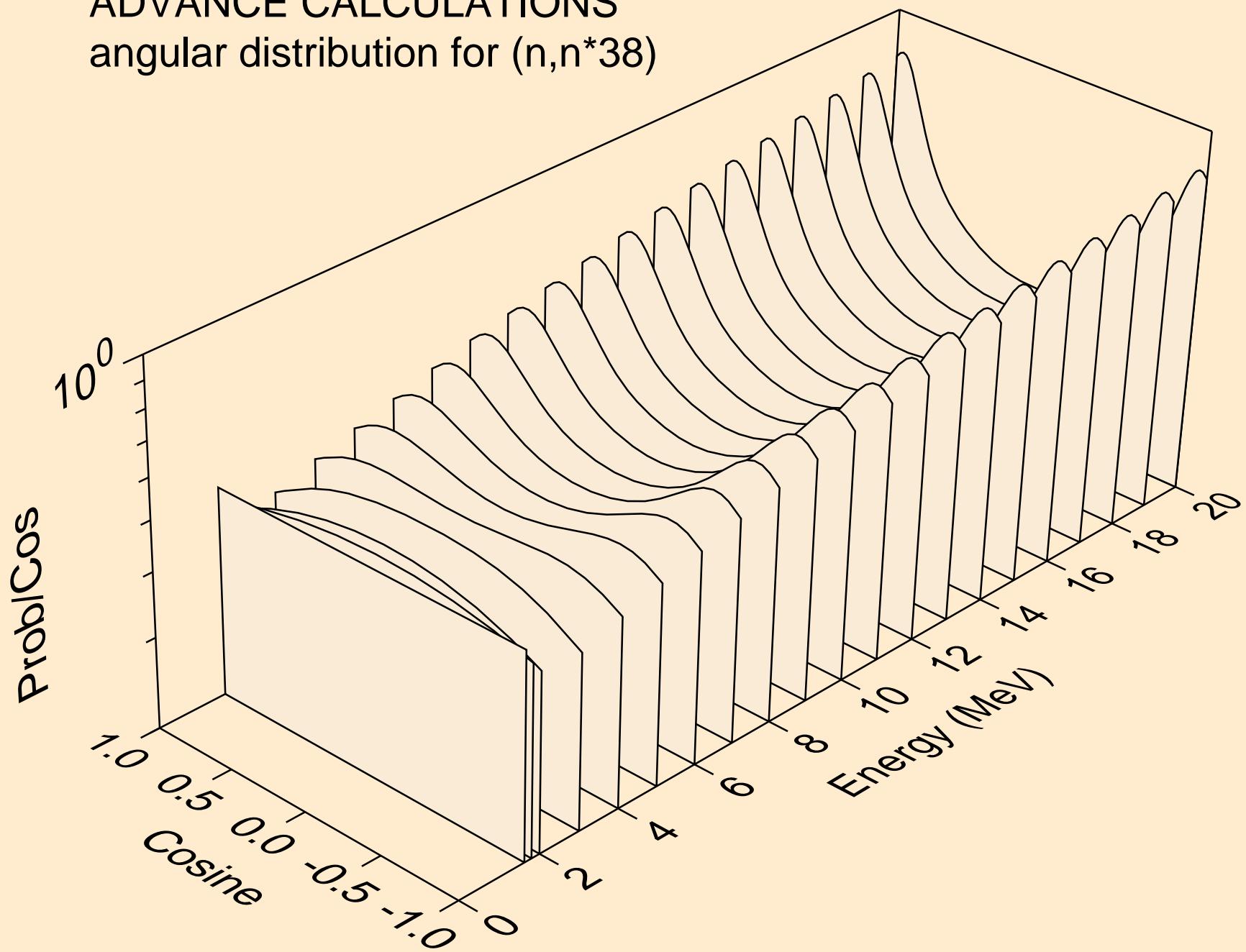
# ADVANCE CALCULATIONS

## angular distribution for ( $n, n^*37$ )



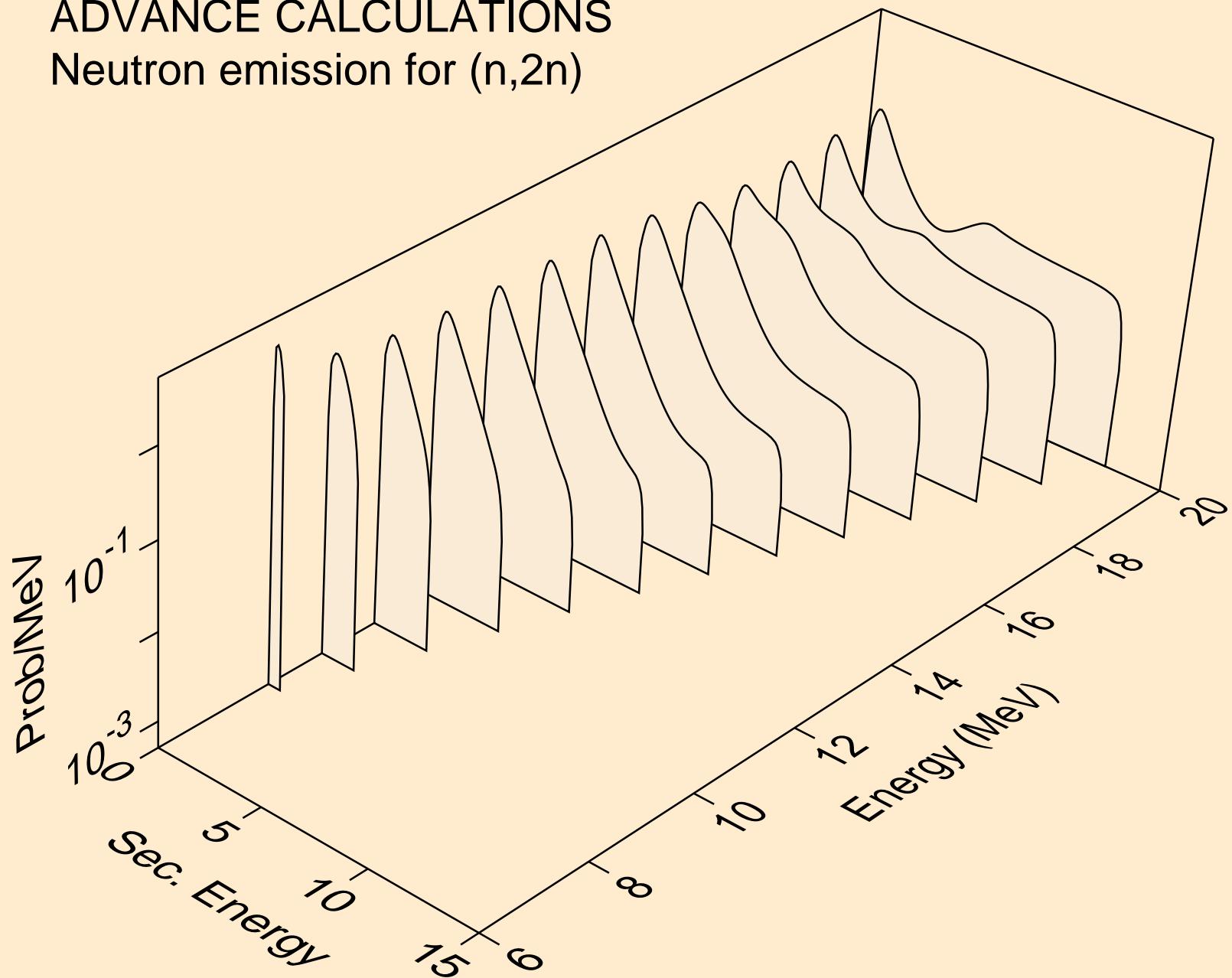
# ADVANCE CALCULATIONS

angular distribution for  $(n,n^*38)$



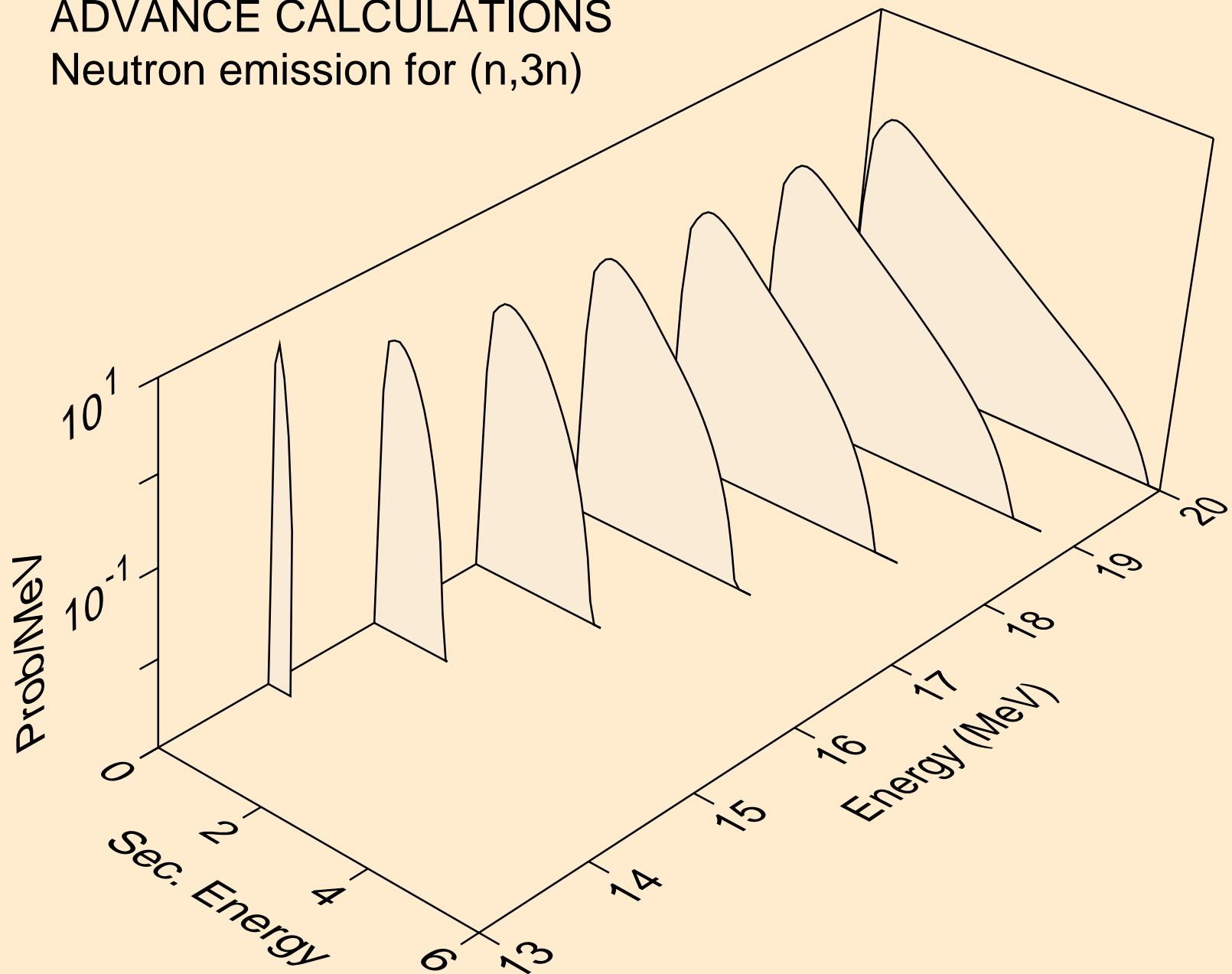
# ADVANCE CALCULATIONS

## Neutron emission for (n,2n)



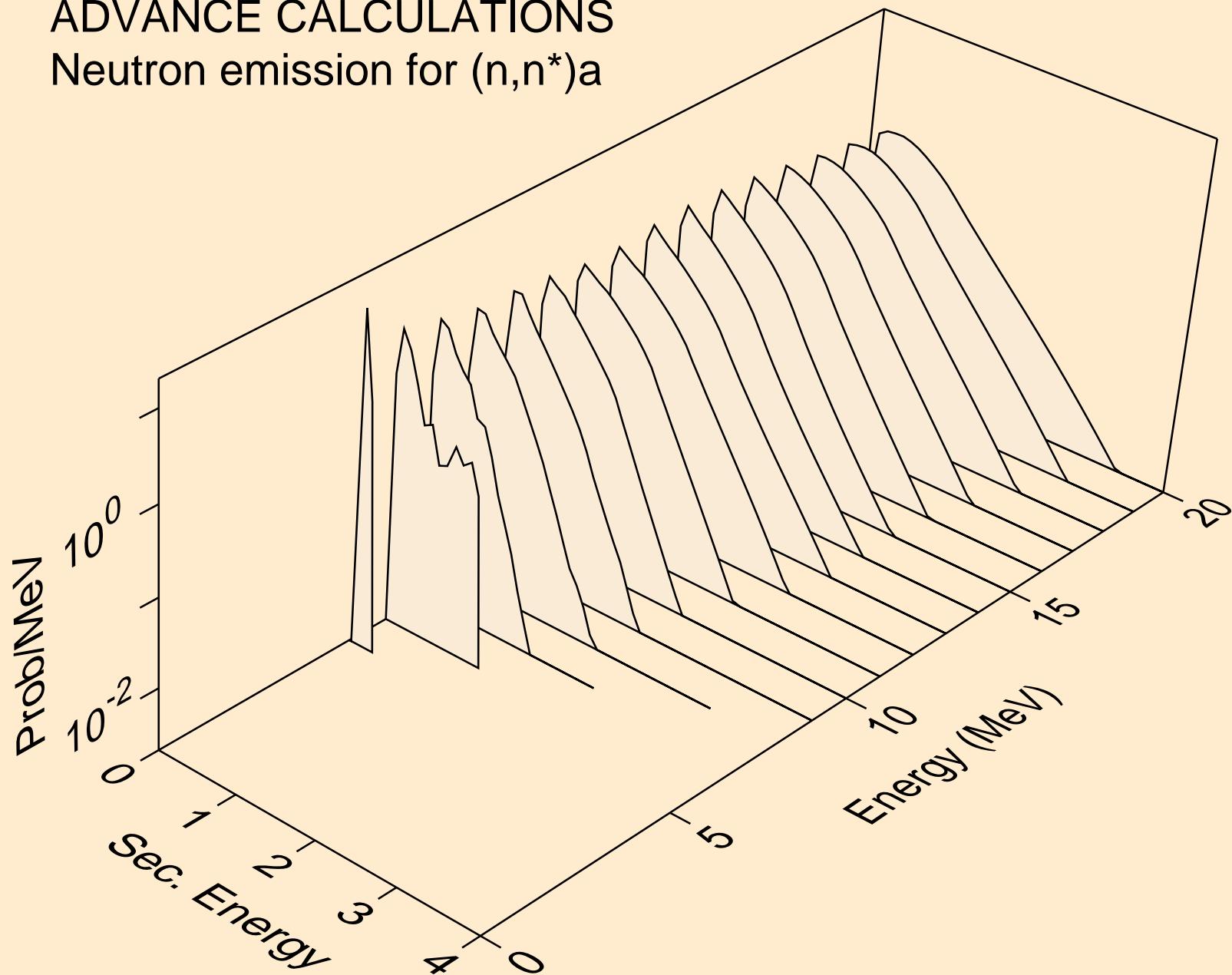
# ADVANCE CALCULATIONS

## Neutron emission for (n,3n)



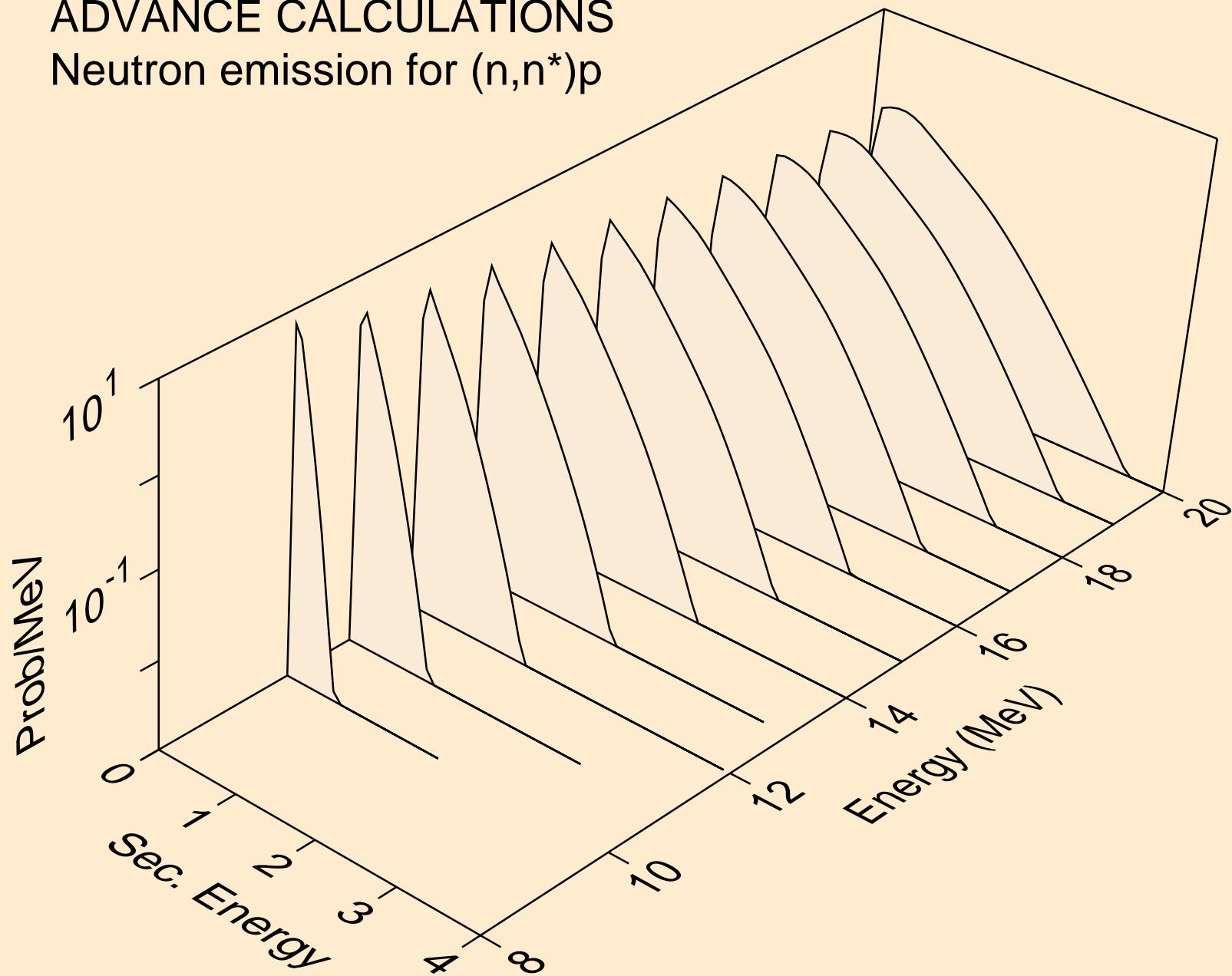
# ADVANCE CALCULATIONS

## Neutron emission for $(n,n^*)a$



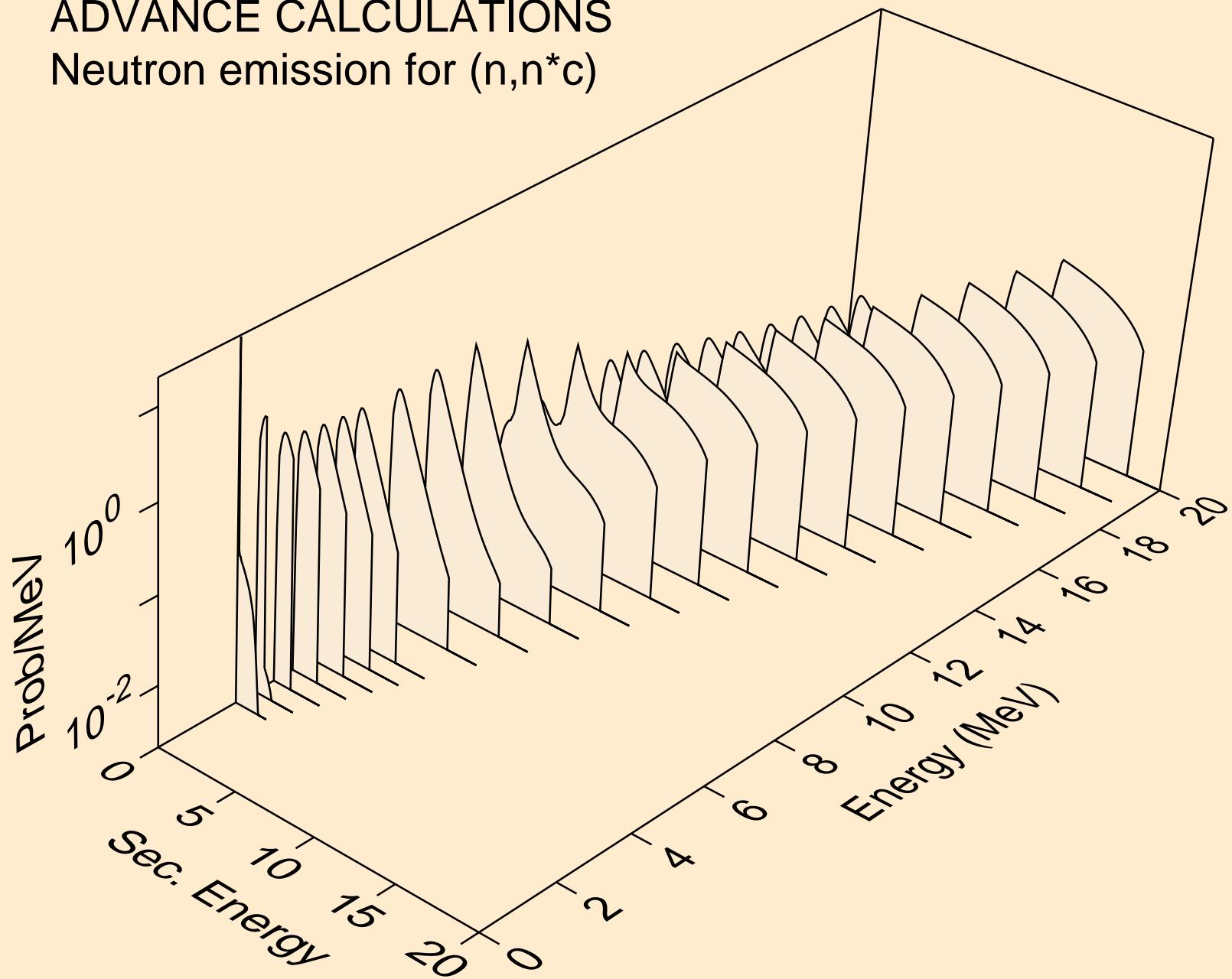
# ADVANCE CALCULATIONS

## Neutron emission for $(n,n^*)p$



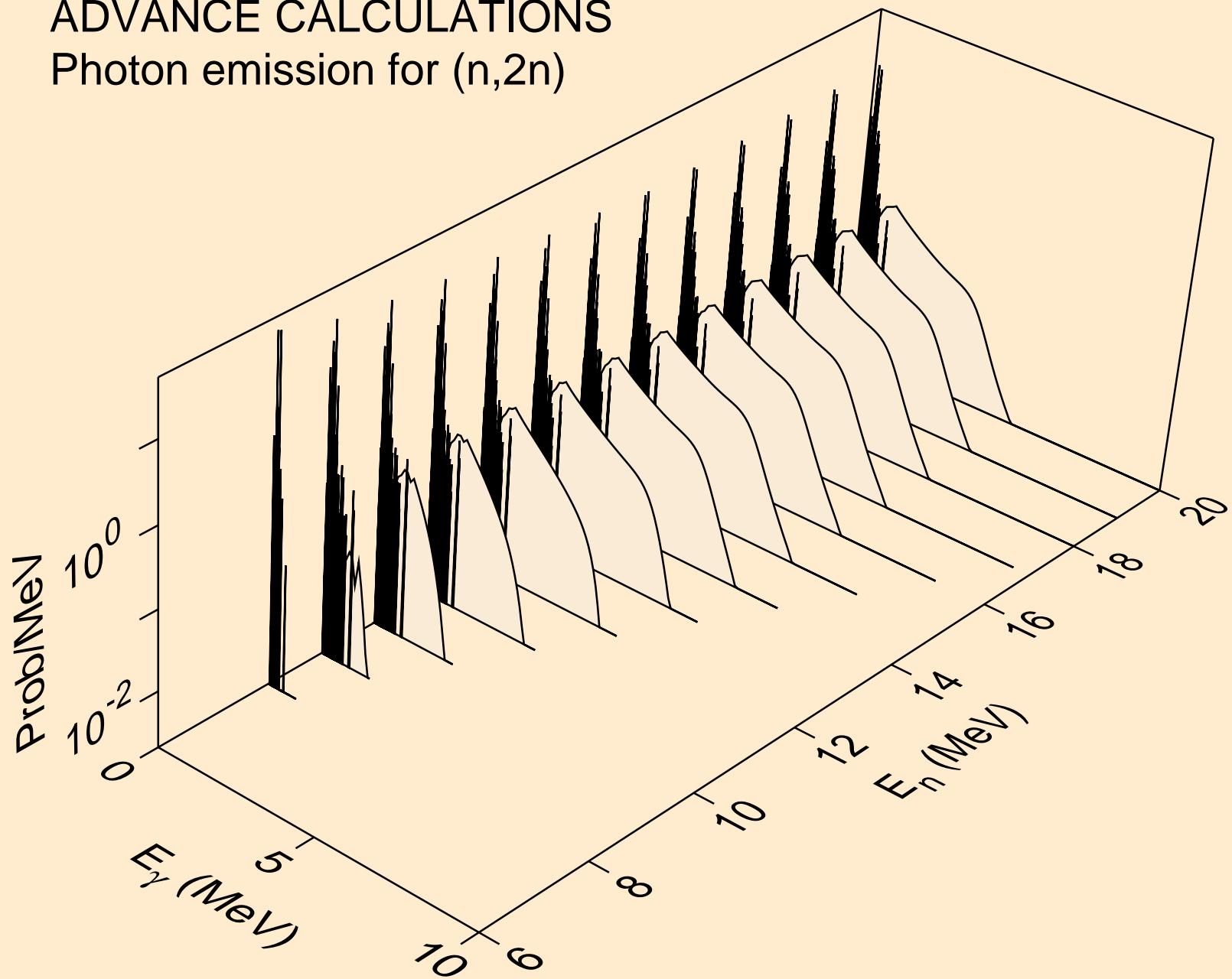
# ADVANCE CALCULATIONS

## Neutron emission for $(n,n^*c)$



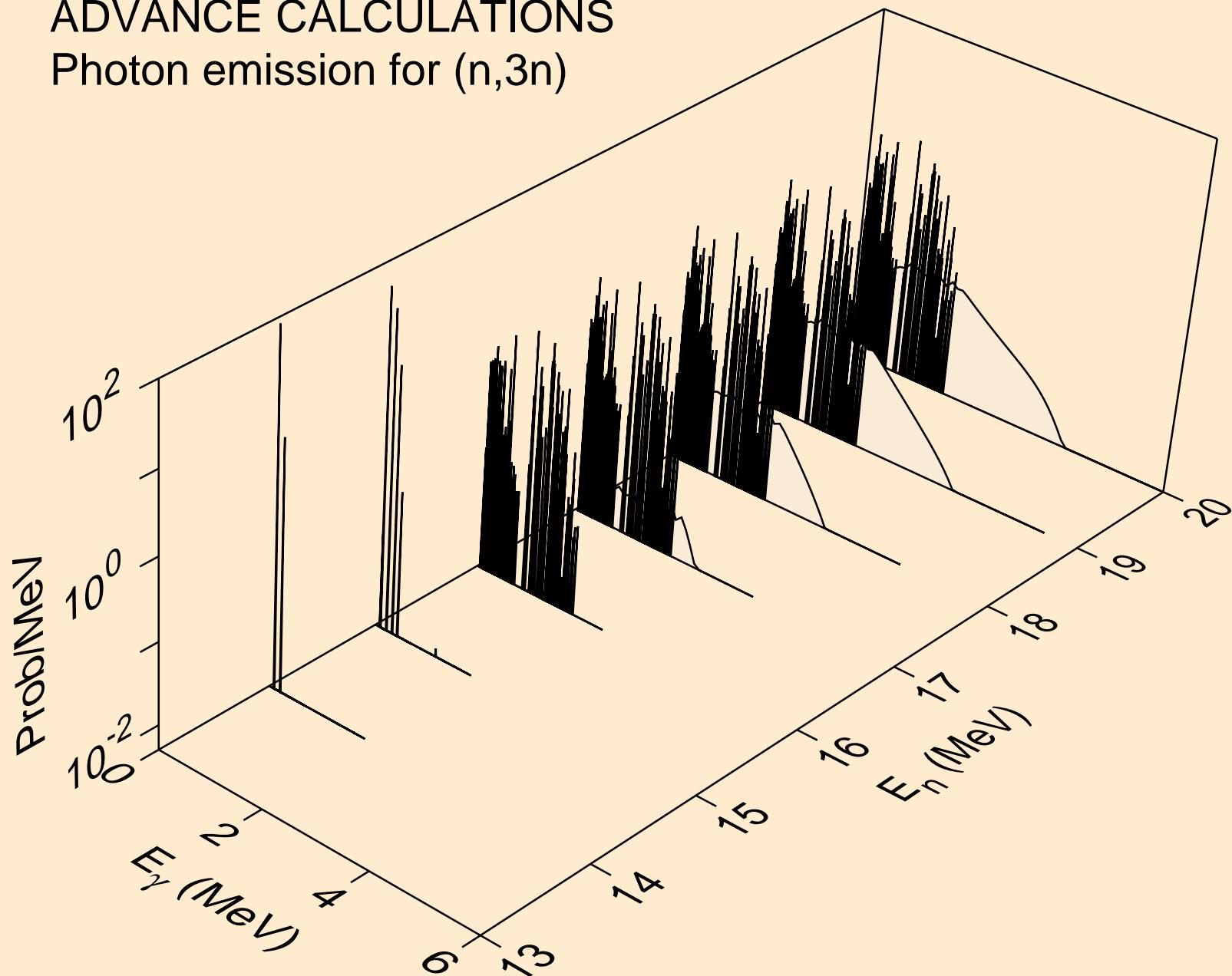
# ADVANCE CALCULATIONS

## Photon emission for (n,2n)



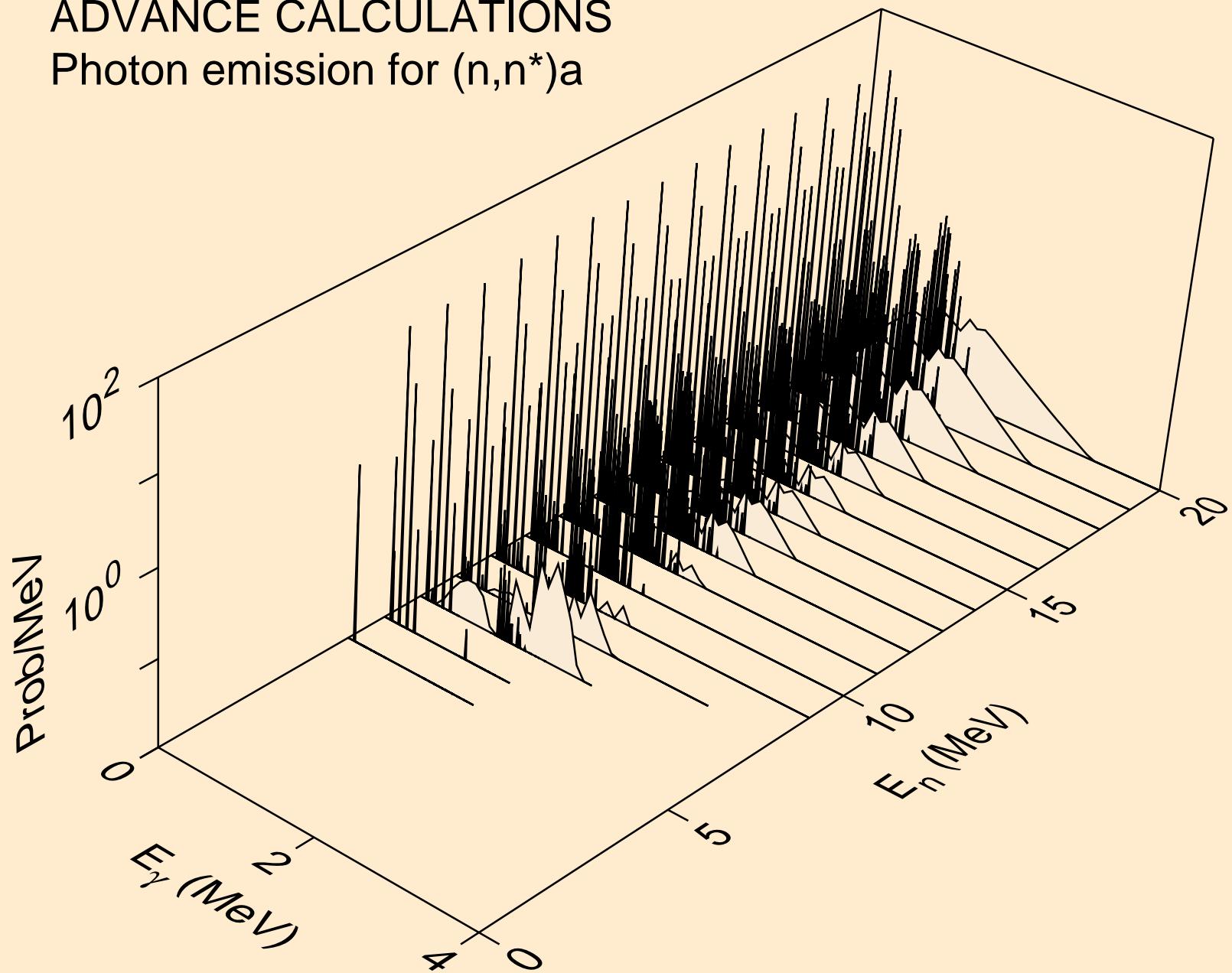
# ADVANCE CALCULATIONS

## Photon emission for (n,3n)



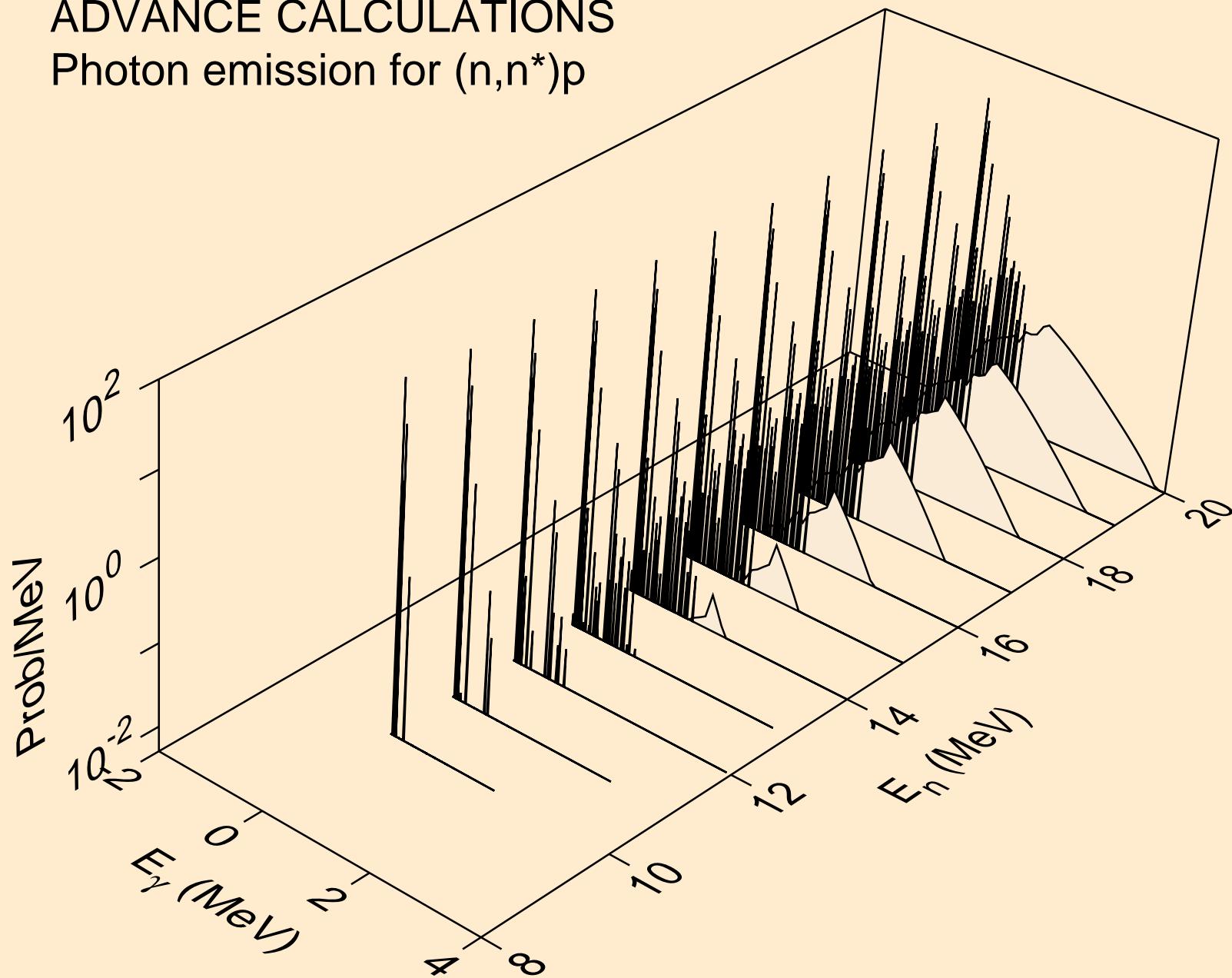
# ADVANCE CALCULATIONS

## Photon emission for $(n,n^*)a$



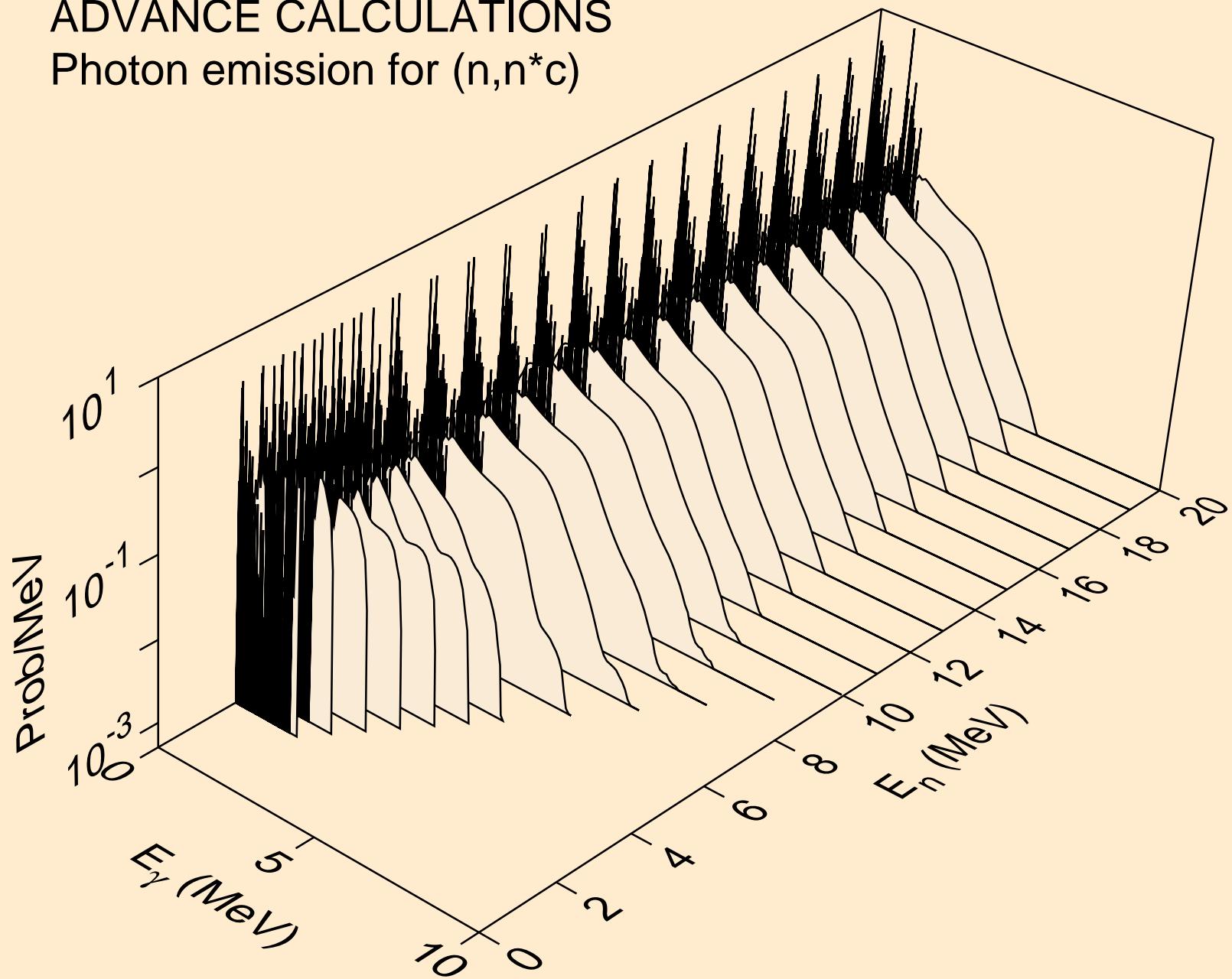
# ADVANCE CALCULATIONS

## Photon emission for $(n,n^*)p$



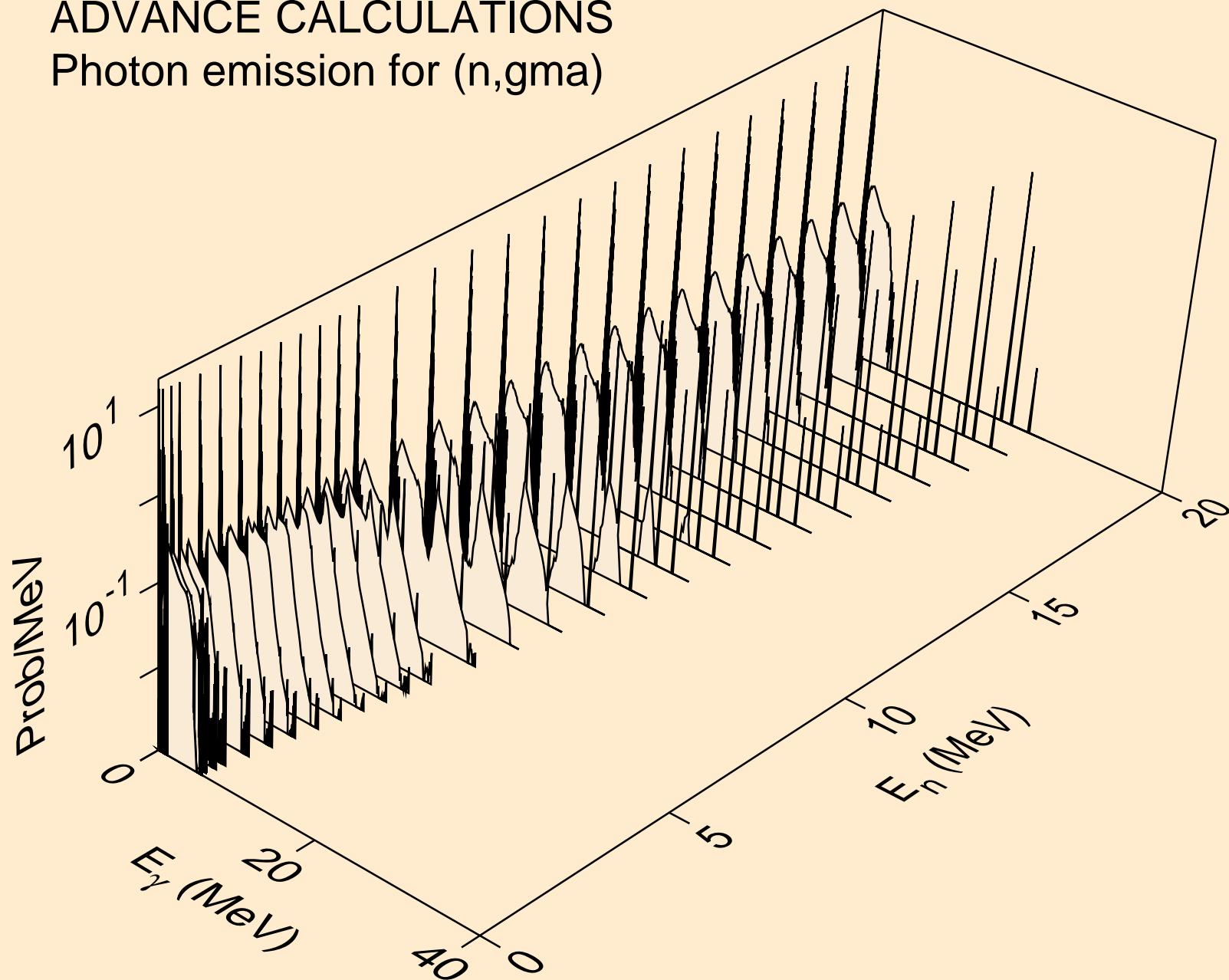
# ADVANCE CALCULATIONS

## Photon emission for $(n,n^*c)$



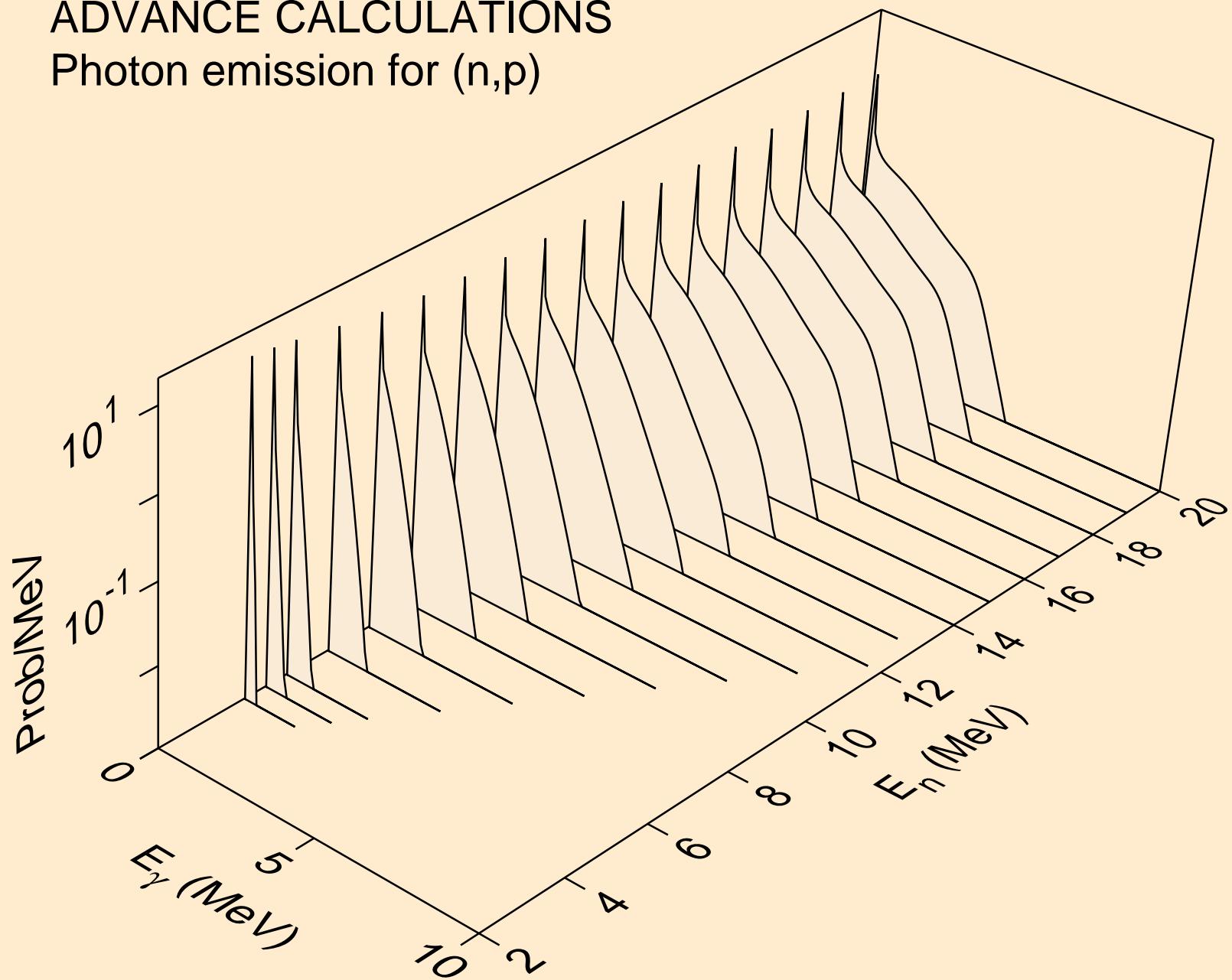
# ADVANCE CALCULATIONS

## Photon emission for (n,gma)



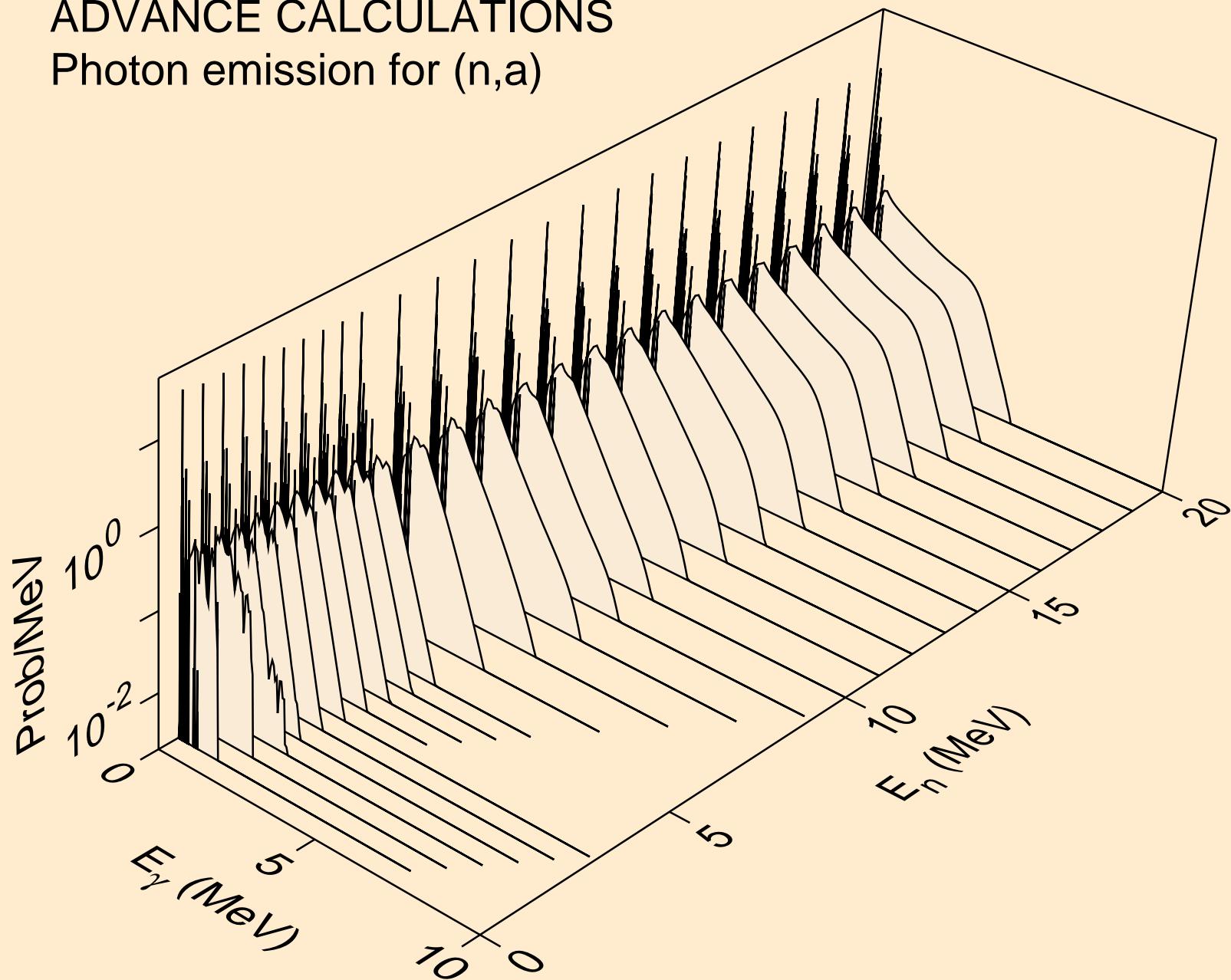
# ADVANCE CALCULATIONS

## Photon emission for (n,p)



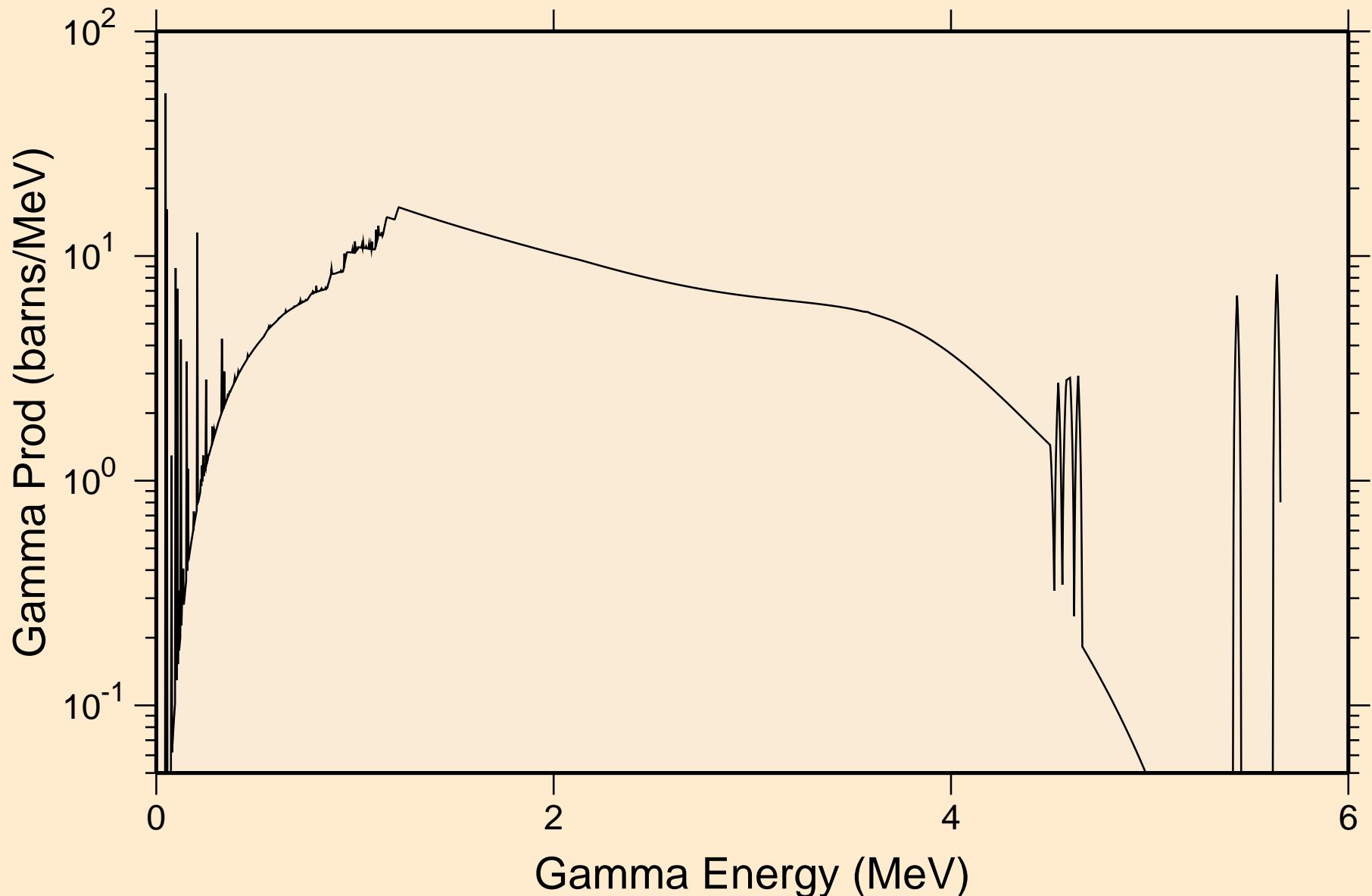
# ADVANCE CALCULATIONS

## Photon emission for (n,a)

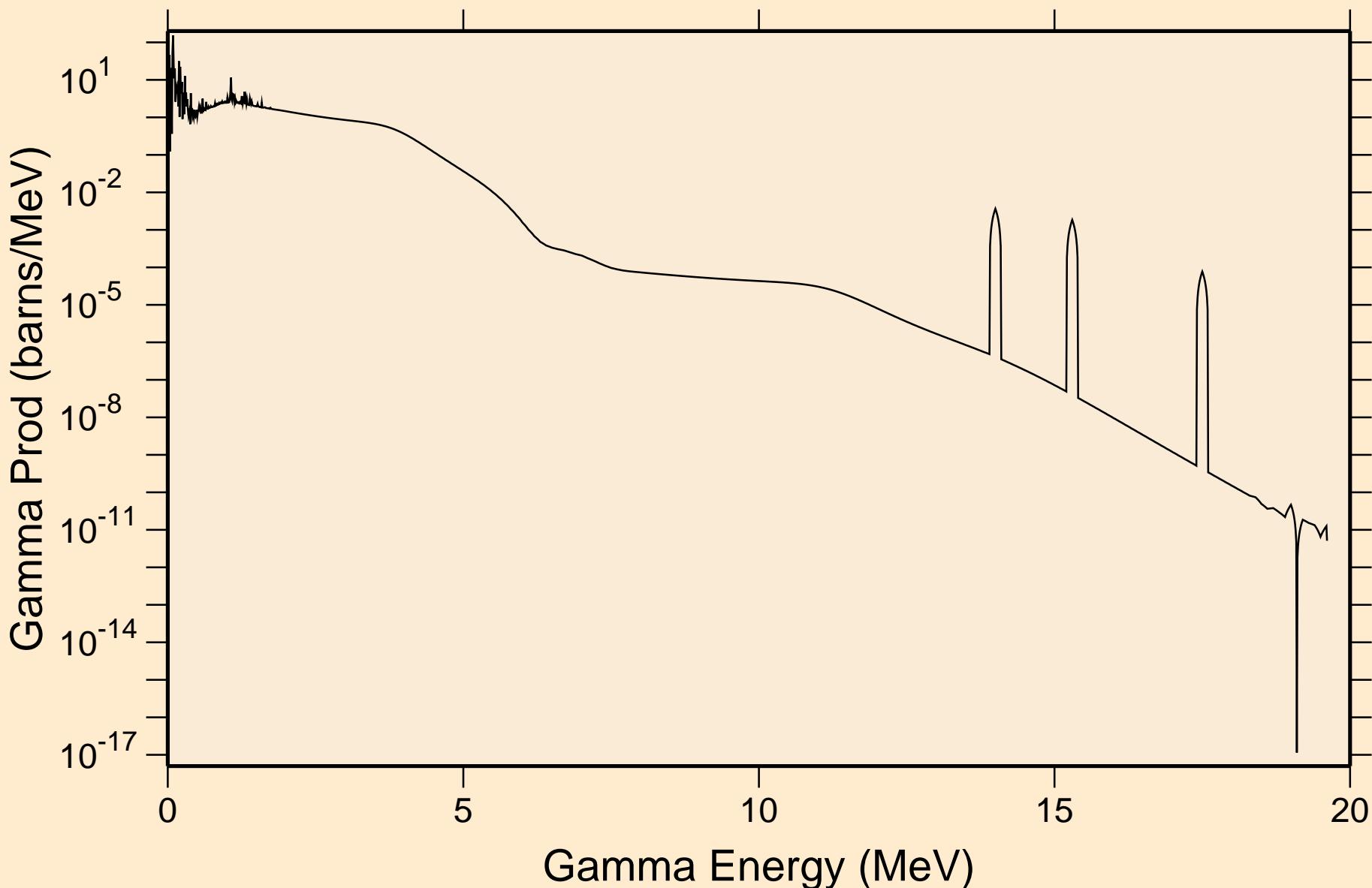


# ADVANCE CALCULATIONS

## thermal capture photon spectrum

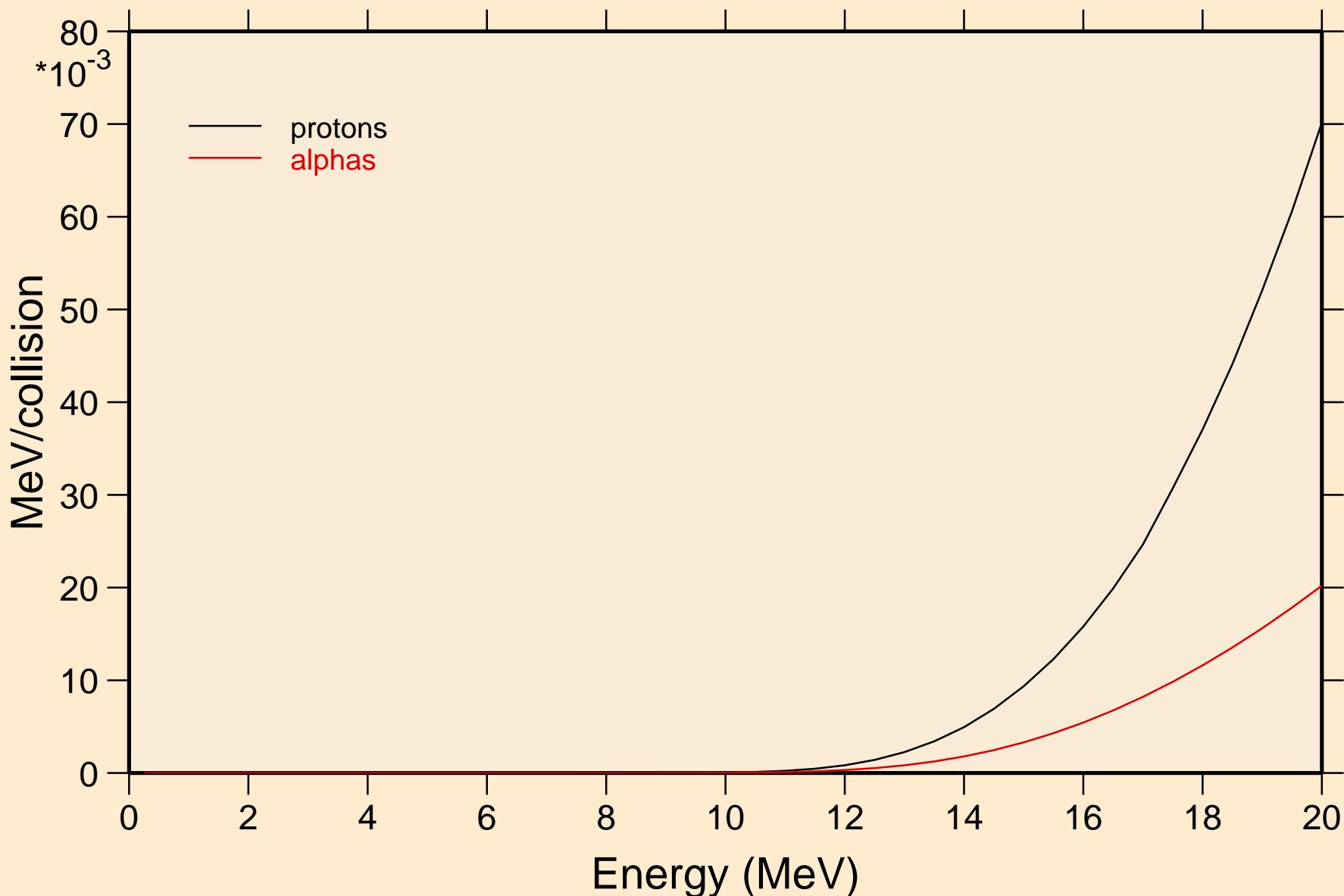


ADVANCE CALCULATIONS  
14 MeV photon spectrum



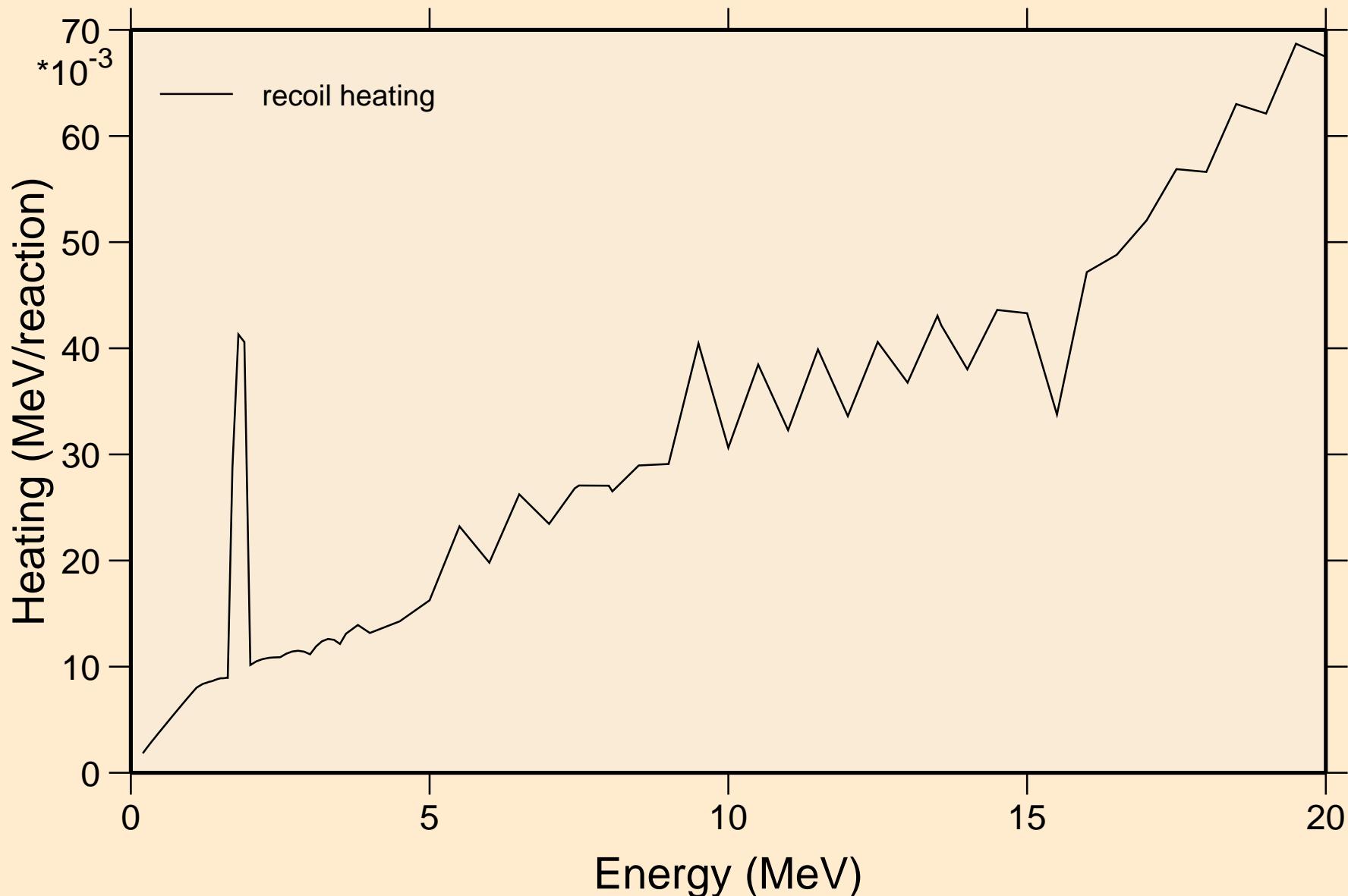
# ADVANCE CALCULATIONS

## Particle heating contributions



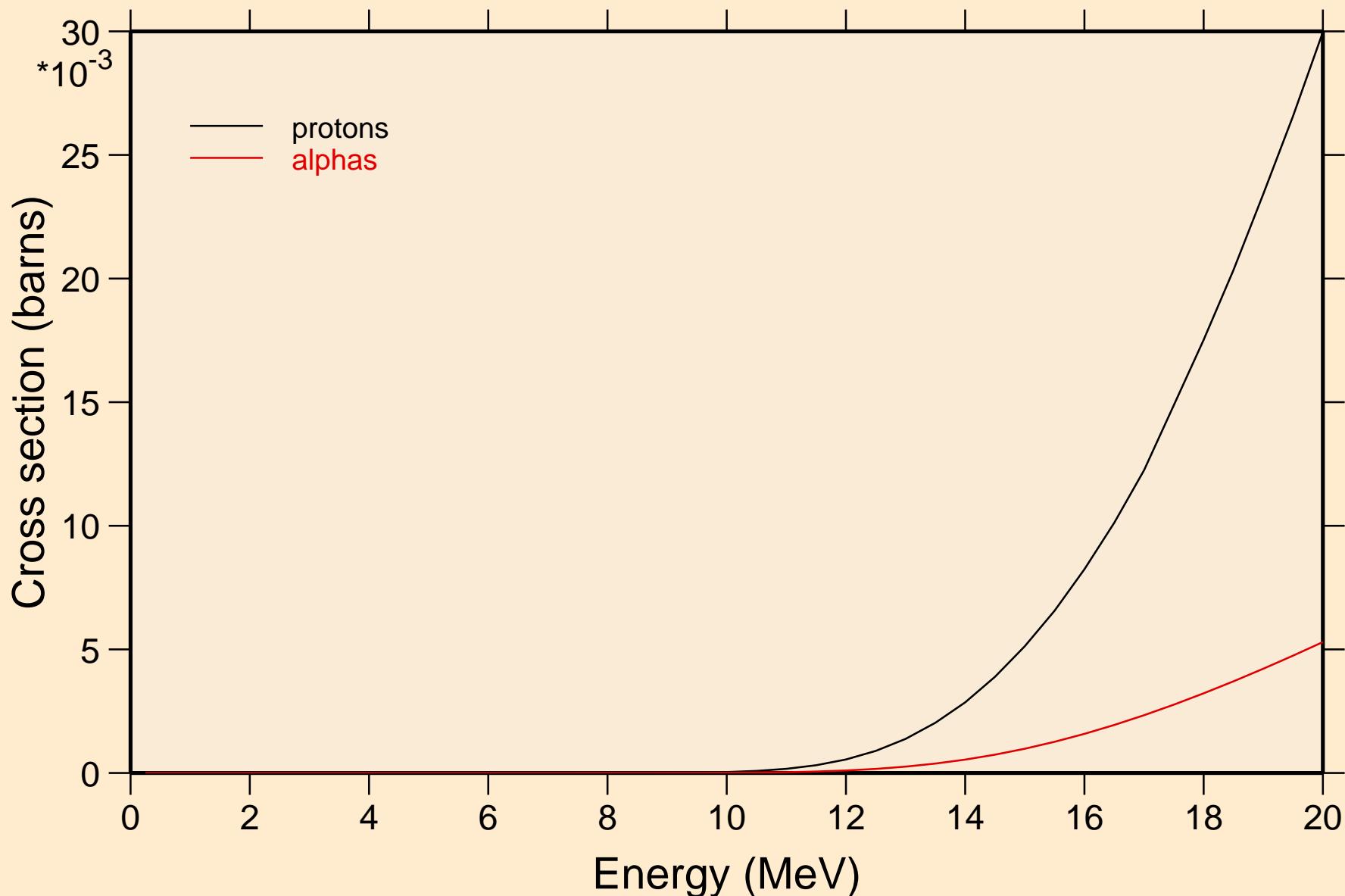
# ADVANCE CALCULATIONS

## Recoil Heating



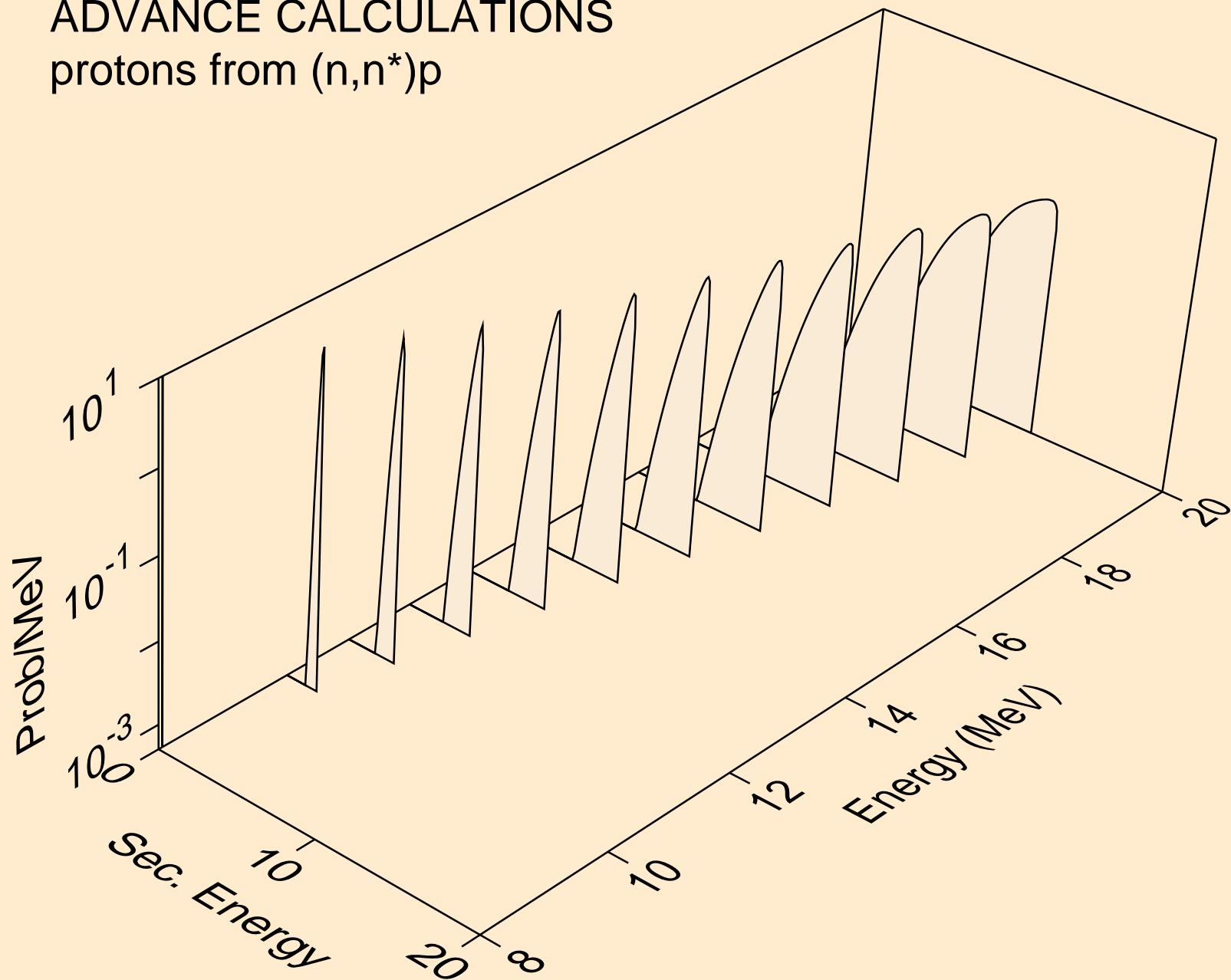
# ADVANCE CALCULATIONS

## Particle production cross sections



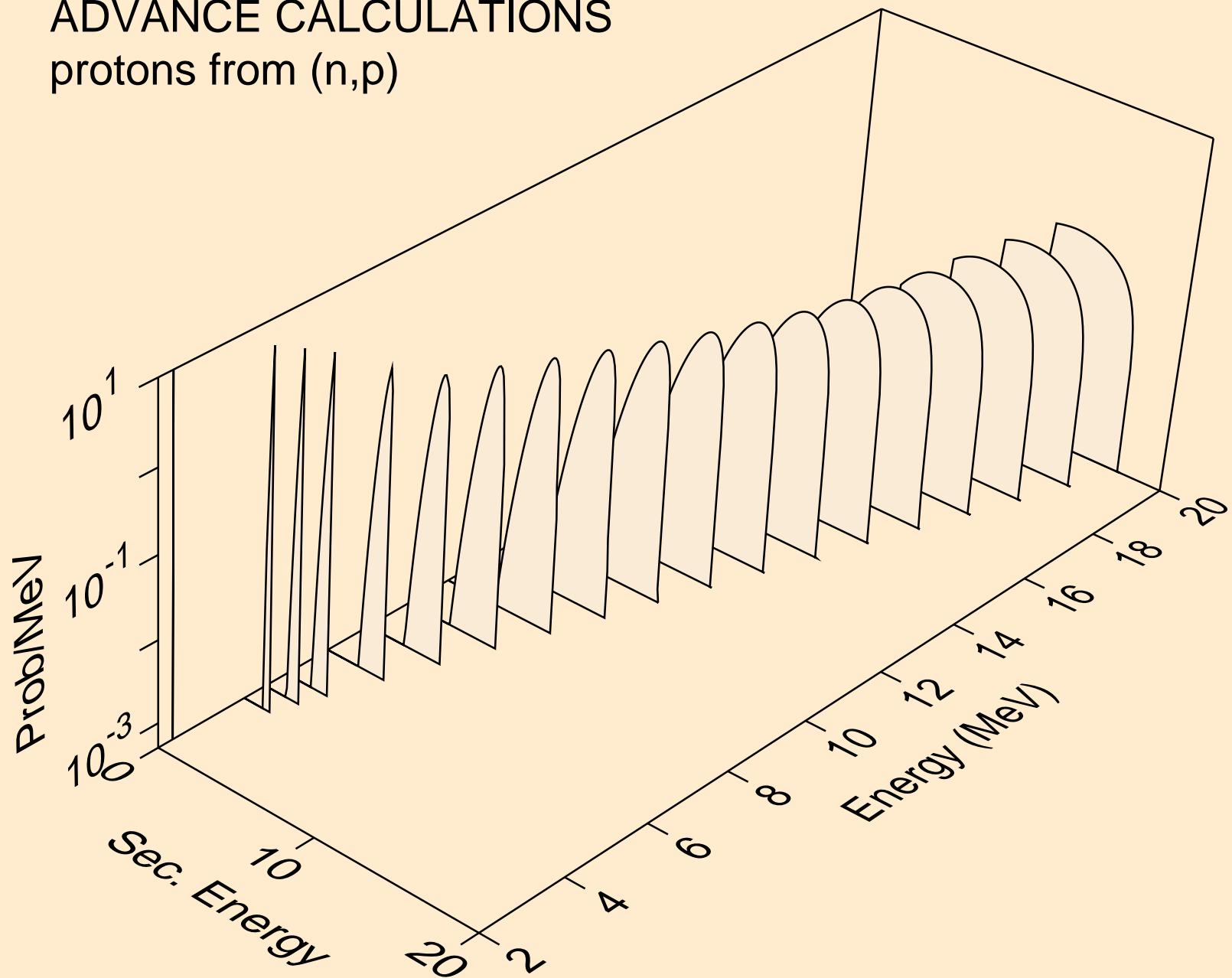
# ADVANCE CALCULATIONS

protons from  $(n,n^*)p$



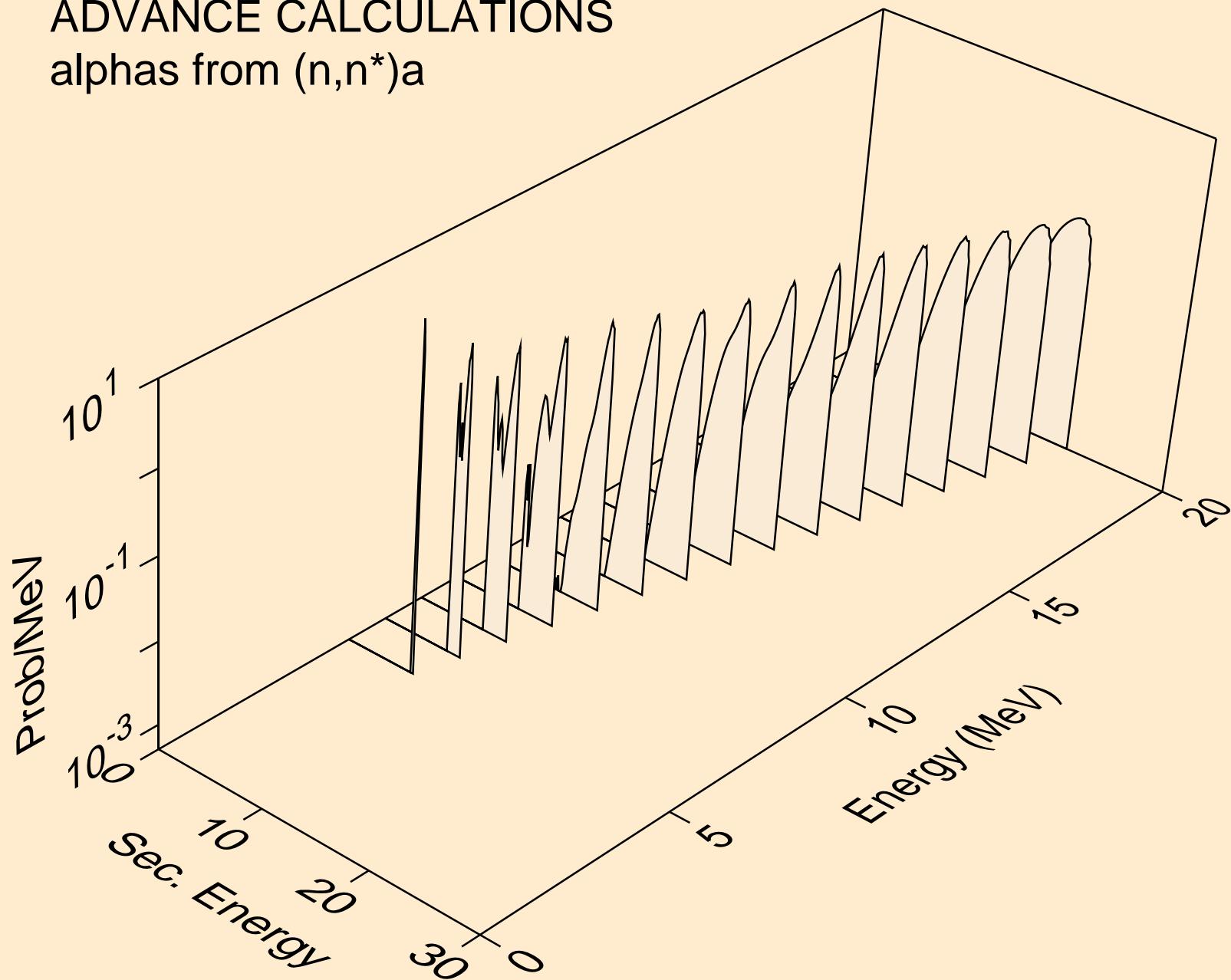
# ADVANCE CALCULATIONS

protons from (n,p)



# ADVANCE CALCULATIONS

alphas from  $(n,n^*)a$



# ADVANCE CALCULATIONS

alphas from (n,a)

